12.3   ASAP Methodology 7 Core

Mark von Rosing, Ann Rosenberg, Jan Musil

In 2009, behind-the-scenes work was undertaken to harmonize the way we project-manage SAP implementations. The result is the new ASAP Methodology for Implementation 7, which was launched in February 2010. The new ASAP methodology brings together the previous ASAP methodology, Business Intelligence Solution Accelerator (BISA) methodology, value delivery principles, business process management methodology, and service-oriented architecture methodology.

The ASAP implementation methodology is a phased, deliverable-oriented methodology that streamlines implementation projects, minimizes risk, and reduces the total cost of implementation. ASAP takes a disciplined approach to project management, organization change management, solution management, business process management, value management, and other disciplines applied in the implementation of SAP solutions. There are two highly visible components of the new ASAP methodology.

The ASAP Roadmap 7 core, which covers the entire project lifecycle — from evaluation through delivery to postproject solution management and operations — and the value, process, and application lifecycle illustrated in Figure 12.16. The new ASAP Roadmap 7 core has been made leaner, increasing its practicality, and provides transparency of value delivery through consistent business case reflection and ensures efficient guidance for service-oriented architecture (SOA), business process management (BPM), and traditional implementation projects.

> **More Information**
>
> You can view and display the ASAP Roadmap 7 core via different tools. You can download it as an HTML extract via SAP Service Marketplace http://service.sap.com/asap, SAP BPX Community http://www.sdn.sap.com/irj/bpx/asap, and SAP Solution Manager, where the ASAP Roadmap 7 core can be assigned to your project in project administration, Transaction SOLAR_PROJECT_ADMIN, as illustrated in Figure 12.17 and deployed in Transaction RMMAIN as shown in Figure 12.18.
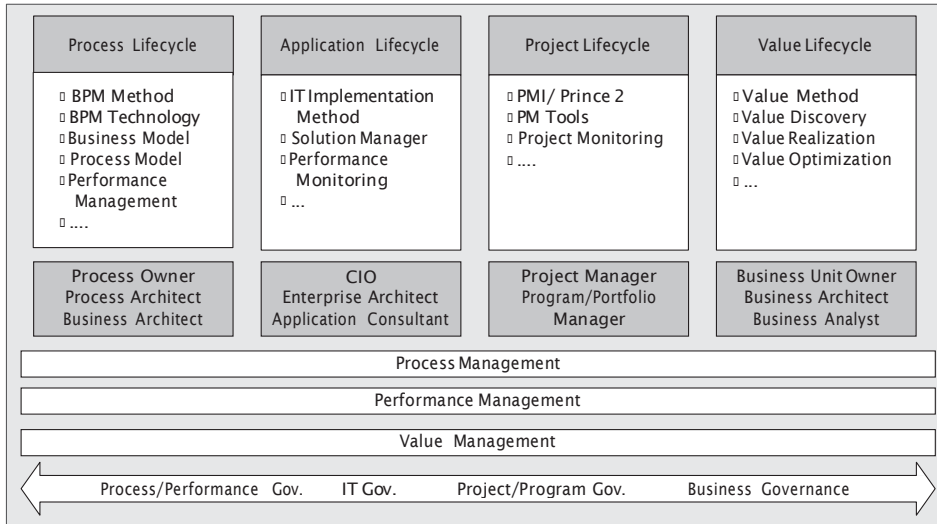
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Figure 12.16 The New ASAP Methodology Supports the Four Lifecycles: Process, Application, Project, and Value
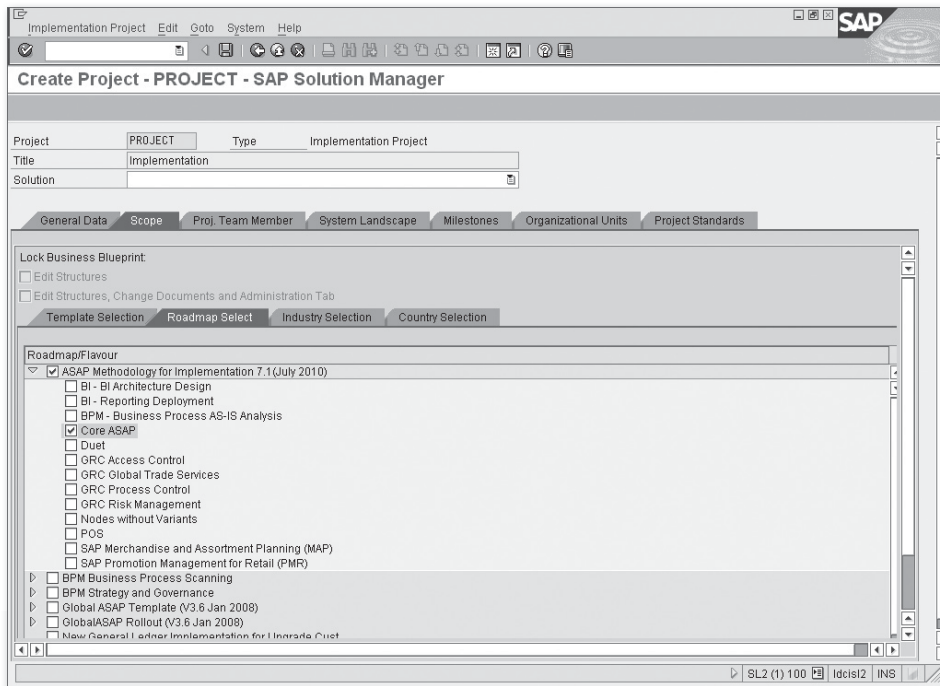

Figure 12.17 Assign ASAP 7 Roadmap in SAP Solution Manager, Project Administration (SOLAR_PROJECT_ADMIN)
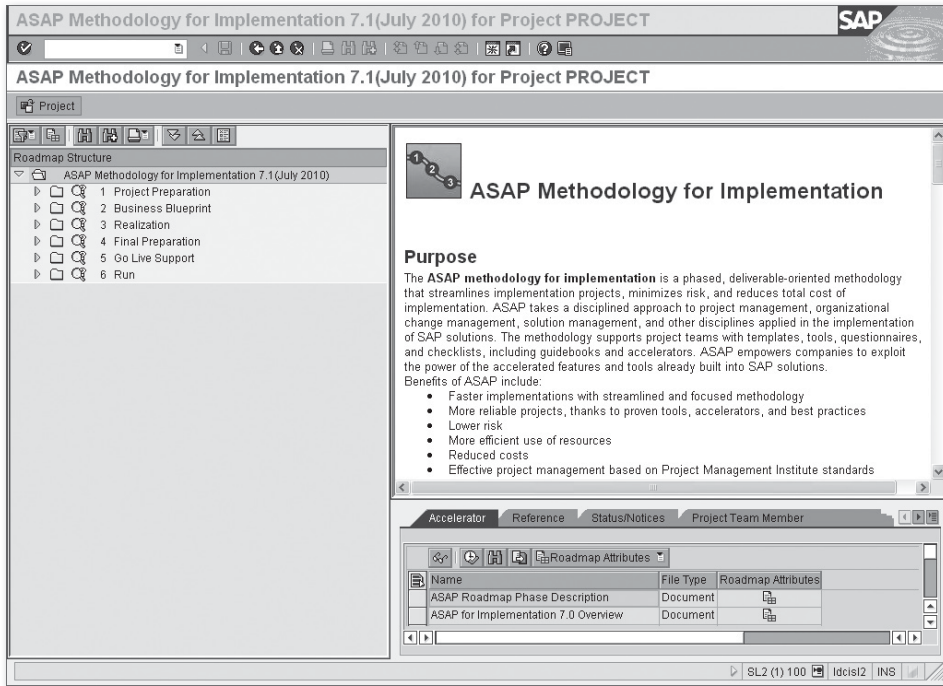
Figure 12.18 ASAP 7 Roadmap in SAP Solution Manager   (RMMAIN)

The second set of visible components of the ASAP methodology is the business add-ons to ASAP that extend the ASAP Roadmap with modular business implementation content. The business add-ons provide proven implementation content for implementation of various industry solutions, solutions packages, and other related areas such as agile methodology, BPM, SOA, and enterprise architecture (EA) governance and strategy frameworks. We will describe in detail the business add-ons to ASAP in Section 12.4.

In the following sections we will introduce each of the ASAP phases in the ASAP Roadmap 7 core, as illustrated in Figure 12.19 and describe how value delivery, business process management, and service-oriented architecture are reflected in the new methodology and how to apply it when you implement an SAP solution where you need to take into consideration both enablement of Best Practices and enablement of own practices, also referred to as composite applications. You can build the composite applications on top of SAP Business Suite's Best Practices with the application core processes and on arbitrary backend systems. Composite applications follow the SOA paradigm of "nonintrusiveness," which means these

applications are bound to provide modification-free process extensions to the core business applications. This section will also describe which skills enablement are required for the project team members to practice the new ASAP methodology, which now covers the value, process, application, and project lifecycle.
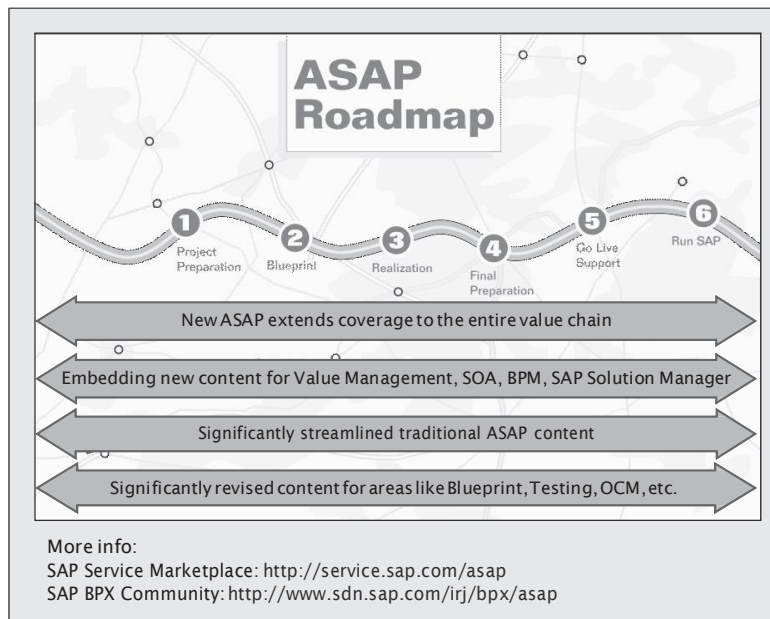

Figure 12.19 ASAP 7 Includes Six Phases

We will start with phase 1, project preparation, and describe how value delivery, business process management, and service-oriented architecture are reflected in this phase, including the skills enablement requirements for the project team members.

12.3.1 Project Preparation

Project preparation is the first phase of the implementation project, where preplanning of all relevant project management disciplines is conducted and documented in the project management plan, for example, procedures for integrated change control, management of issues, scope, time, cost, quality, project staff, communication, risk, and contracted resources and services. Defining these procedures enables structured project execution, monitoring, and controlling in subsequent project

phases and contributes to ensuring project success. As shown in Figure 12.20, project preparation includes seven work streams:

▶ 1.1 Project management

▶ 1.2 Organizational change management

▶ 1.3 Training

▶ 1.4 Data management

▶ 1.5 Business process management

▶ 1.6 Technical solution management

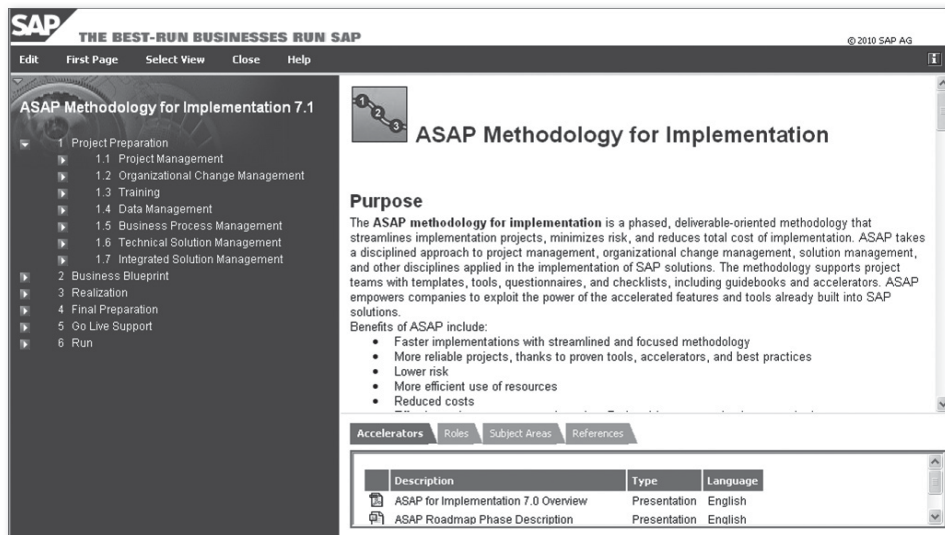▶ 1.7 Integration solution management

Figure 12.20   Project Preparation – Seven Work Streams

The project management work stream is completely aligned with Project Management Institute (PMI) project management standards as defined in the PMI Project Management Body of Knowledge (PMBOK). Project standards for various activities throughout all phases are defined or start to be defined in this phase:

▶ 1.1.5.1 SAP Solution Manager usage guidelines

▶ 1.1.5.2 Business process modeling standards (new)

▶ 1.1.5.3 Initial development management standards

- ▶ 1.1.5.4 SAP services deployment plan
- ▶ 1.1.5.5 Software system configuration standards
- ▶ 1.1.5.6 Enhancement and modification standards
- ▶ 1.1.5.7 Support package and upgrade standards
- ▶ 1.1.5.8 Change request and transport management standards
- ▶ 1.1.5.9 Test management standards
- ▶ 1.1.5.10 Postimplementation service and support standards
- ▶ 1.1.5.11 Enterprise service design standards (new)
- ▶ 1.1.5.12 Composite application design and development standards (new)

We recommend having these standards in place when implementing an SAP solution. Note that a number of new standards have been added. You can find more details on these standards later in this chapter.

The project preparation phase includes several deliverables, milestones, and key decisions, as illustrated in Table 12.7. For each deliverable, the ASAP Roadmap explains in detail the purpose, inputs, and outputs and where it's applicable and gives further details and information about the expected result.

Purpose	Deliverables	Milestones & Key Decisions
Initial planning and preparation	Project scope defined	Corporate review completed
Define the project goals, scope, and objectives	Implementation plan and rollout strategy	Scope defined
Identify, on-board, and train team members	Detailed scope document	Project team staffed and trained
	Costs and benefits validation	Project team organization, responsibilities and location
	Project standards	Roll-out plan mandates/constraints
	Project infrastructure	Policies for to be project organization
	Knowledge transfer approach	System retirement objectives/mandates/constraints

Table 12.7 Deliverables in Project Preparation

Purpose	Deliverables	Milestones & Key Decisions
	Implementation work plan	Training budget and approach
	Master data design	Key stakeholders for communications identified
	Interface list	Implementation plan in place
	Testing strategy	Corporate review completed
	Data cleansing strategy	

Table 12.7 Deliverables in Project Preparation (Cont.)

After this short intro to the project preparation phase, we will take a closer look at the value delivery considerations in this phase.

Value Delivery Considerations in Project Preparation

Value determination is part of the business process management work stream as shown in Figure 12.21. The purpose of the value determination deliverable is to create a value-based solution design to determine value drivers and key process changes for the implementation project to ensure value delivery.
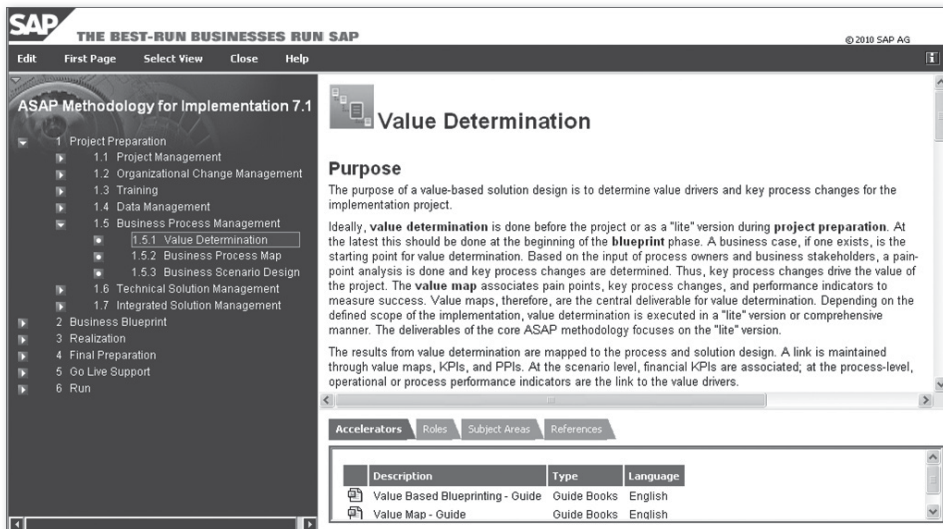

Figure 12.21 Project Preparation – Value Determination

The objective of value delivery is to ensure that the project lives up to the value expectations according to the targets that are stated in the initial business case. This value-based approach serves the following purposes in project preparation phase:

1. Execute the project according to the business case or value map targets.
2. Monitor and track the project value delivery based on the initial business case or value map and report the status of value delivery at an early stage of quality gates (Q-Gates).

Value-based solution design plays a critical role in determining value drivers and key process changes for the implementation project. To realize the intended business value for this initiative, it is essential to address key success factors and establish a clear, shared set of expectations for program value creation; achieve a rapid program launch with effective value-based governance; make the business case actionable and measureable by defining design imperatives, key performance indicators (KPIs) and process performance indicators (PPIs); establish ongoing value management discipline to ensure that the business blueprint phase (following the project preparation phase) and implementation reflect design imperatives.

The inputs required for value determination in project preparation are a value-based opportunity storyline created by clearly identifying the value built into the business case including benefit objectives, relevant processes and key process changes, financial operational KPIs and PPIs for measurement, and expected values and costs. We also recommend establishing project management and value tracking with these methods: Including a value expert, integrating a value schedule, and reporting for value delivery. Another recommended activity is to set up a project value framework that includes key inputs such as benefit objectives, relevant processes and key process changes, KPIs, value potentials, and costs. By correctly completing the recommended activities for a value-based approach, the project will gain an overall value-based solution proposal.

Let's now take a closer look at the business process management considerations in the project preparation phase.

Business Process Management Considerations in Project Preparation

Business process management (BPM) is one of the seven work streams in project preparation. Figure 12.22 shows the BPM work stream.
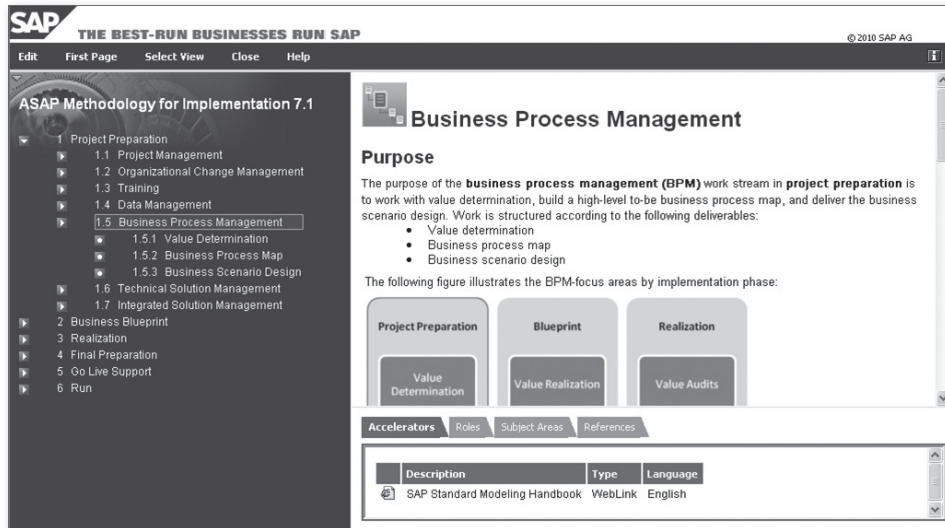
Figure 12.22 Business Process Management Work Stream

The purpose of the business process management work stream in project preparation is to work with value determination, build a high-level to-be business process map, and deliver the business scenario design.

The work-stream deliverables are enhanced to expand on the business case and ensure that the value drivers are incorporated into the solution design. In addition to identifying the value drivers, key process changes are also identified for input into the solution transformation design deliverable that is part of the business blueprint BPM work stream. The creation of business process maps helps the project team verify the agreed upon scope of the project and provide inputs for the business blueprint workshop content. Business process maps provide the framework for business process modeling and therefore help control the scope of the project. Decomposition of the business scenarios during project preparation is the starting point and acts as the foundation for the detailed business process decomposition that takes place during the business blueprint stage. The primary changes for business process management during project preparation therefore involve the new work packages:

▶ Value determination
   Covered in Section 12.3.1.

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▶ Business process map
Builds the foundation for the process hierarchy and process scope of the imple-mentation.

▶ Business scenario design
Provides an understanding of the essential processes at the scenario level and builds the foundation for further process decomposition that will take place in the business blueprint phase.

The inputs required for the business process management work stream are proj-ect scope as specified in the statement of work catalog of as-is business process documentation. If the catalog of as-is business process documentation does not exist, we recommend executing an as-is analysis before starting the to-be design. The as-is analysis is not included in ASAP 7 core but can be added via the busi-ness add-on to ASAP that delivers business process as-is analysis methodology as illustrated in Figure 12.23, where the add-on ASAP: Business Process As Is Analysis is activated.
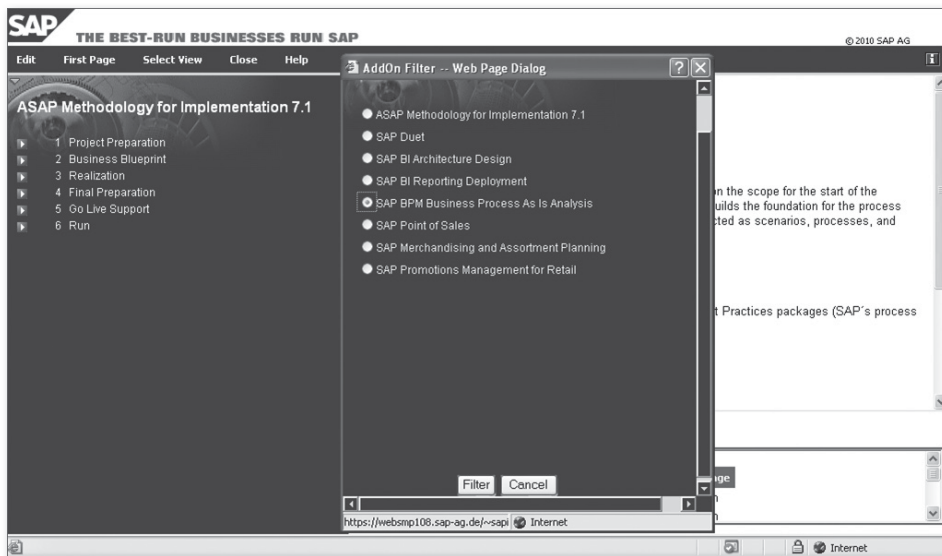

Figure 12.23 Activate Business As-Is Analysis Methodology Add-On

In Figure 12.24 you can see how the additional as-is analysis methodology has been merged into ASAP core.
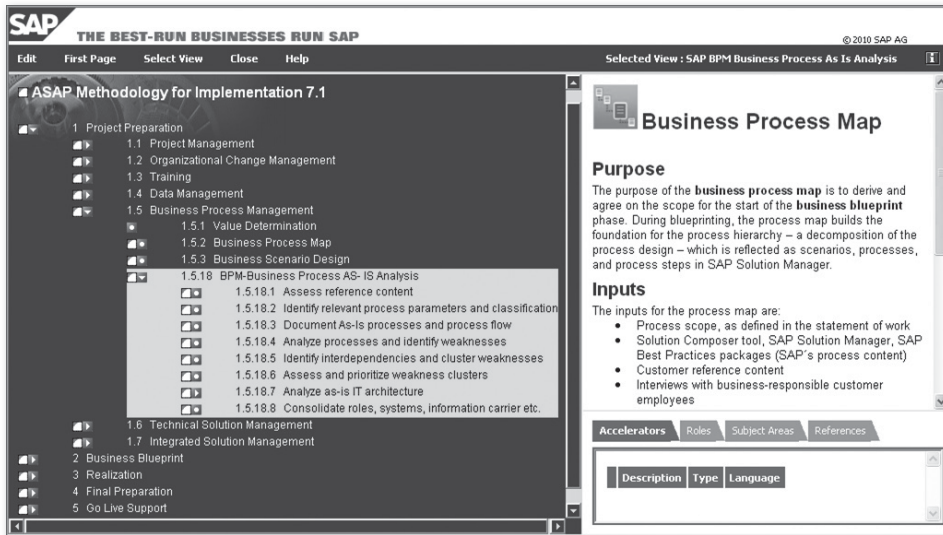
Figure 12.24 Business Add-On that Delivers Business As-Is Analysis Methodology Merged into ASAP Core

You can also get help from the business add-on to ASAP that delivers redocumentation using SAP Solution Manager and SAP Enterprise Modeling by IDS Scheer to identify and analyze your automated as-is business processes. Figure 12.25 illustrates this add-on. For more information please go to SAP EcoHub at http://ecohub.sdn.sap.com/.

Figure 12.25 Business Add-On that Delivers Redocumentation Using SAP Solution Manager and SAP Enterprise Modeling

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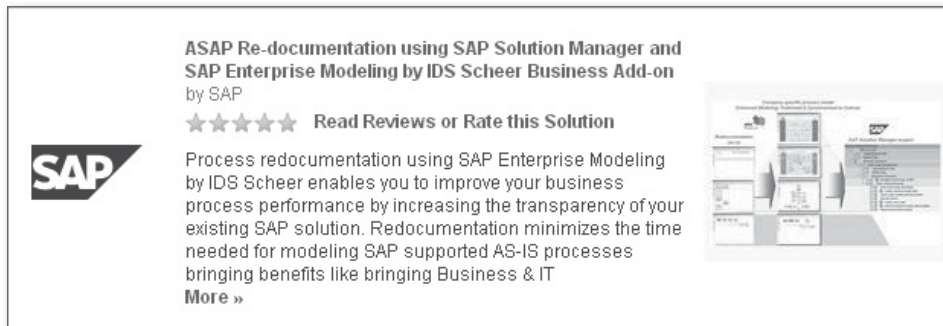The last input is to define business process modeling standards and business to modeling tools. For this activity we get help from project standards (1.1.5) and business process modeling standards (1.1.5.2).

The purpose of the business process modeling standards is to have a standard approach for executing process modeling. SAP provides a standard modeling handbook that is linked as an accelerator to this deliverable in ASAP.

> **More Information**
>
> The SAP Standard Modeling Handbook is available on the BPX Community as a wiki. For more information please go to http://wiki.sdn.sap.com/wiki/display/ModHandbook/ SAP+Modeling+Handbook+-+Modeling+Standards.

To support the test management standards (1.1.5.9) and the different test activities during the implementation, the following business add-ons to ASAP are available for delivering content for testing:

▶ Testing Strategy

▶ SAP Quality Center by HP

▶ TAO for SAP

▶ TDMS

▶ SAP LoadRunner by HP

> **More Information**
>
> For more information please go to SAP EcoHub http://ecohub.sdn.sap.com/.

Now that we have taken a closer look at value delivery and business process management considerations, we will take a closer look at the service-oriented architecture considerations in the project preparation phase.

SOA Considerations in Project Preparation

The decision to implement SOA usually represents an important architectural paradigm shift for a company — within both the business and IT organizations. The burden of SOA implementation typically falls most heavily on the organizational side of the enterprise, where new skills and responsibilities have to be introduced along with focused attention to the business requirements including new IT capabilities and to the tighter relationship between IT and business. The ASAP

7 methodology implies key SOA considerations and activities within the following work streams within the project preparation phase:

▶ Work stream: project management (1.1), project management standards (1.1.5). New development standards need to be defined for enterprise service design standards (1.1.5.11) and composite application design and development standards (1.1.5.12).

For more details about composite development architecture guidelines and standards, which is one of the key accelerators, follow the link to composite application design and development standards (1.5.12) (see Section 13.1).

▶ Work stream: technical solution management (1.6). The purpose of the technical solution management work stream is to outline essential technical and infrastructure deliverables that are appropriate to the initial project planning of an SAP implementation project. When defining the technical and infrastructure deliverables, you also need to include the deliverables for a composite application and enterprise services development environment, as illustrated in Figure 12.26.
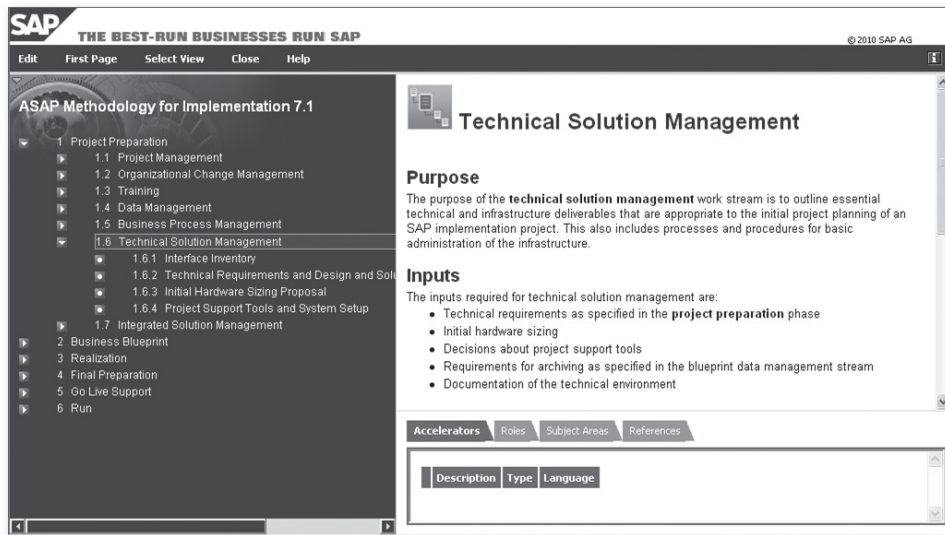

Figure 12.26 Project Preparation – Technical Solution Management

We recommend establishing an enterprise service-oriented architecture strategy and governance to ensure the success of your project. Effective enterprise SOA strategy and governance calls for a holistic management approach that integrates

and aligns the corporate business strategy, the IT strategy, and the planning and operational activities associated with enterprise SOA solutions. This approach encompasses people, processes, and technologies. In most companies, some elements of enterprise SOA governance already exist. For instance, you can leverage IT governance as part of the foundation for enterprise SOA governance. But enterprise SOA governance is much more; it involves organizational structures, skills, and procedures aligned with business needs. To establish the enterprise service-oriented architecture strategy and governance you can get help from the business add-on to ASAP that delivers an enterprise service-oriented architecture strategy and governance framework. For more details about this business add-on to ASAP, please go to Section 12.4.3.

Because this is the last part of this section, we will take a look at the skills that project team members need to have to practice the new ASAP methodology.

Consultants, Business Process Experts, Project Managers and Team Leads – Considerations in Project Preparation

Consultants and business process experts who join the project during the project preparation phase play a larger role in the project than before. Not only do they assist the project managers in validating high-level scope, but they have to think in terms of a value- and process-based implementation by assisting in the preparation of to-be process measurement and prepare for value delivery. Team leads are engaged during project preparation to initiate their own work stream. No longer is it sufficient to rely on only the project manager and technical architect to create the deliverables during project preparation. The foundational deliverables in project preparation set the scope, strategy, and value focus for the remainder of the project. In today's global economy and tough economic climate, consultant team leads and project managers need to be business oriented. Meeting the constraints of time, cost, and quality while delivering a project is not enough. Projects must be viewed strategically within the context of the business and provide measureable value. Implementing projects that may not deliver the intended value until a few years down the road is very challenging and will require team leads to gain the knowledge to work with the new paradigm.

We will now go to the next phase — business blueprint — and describe how value delivery, business process management, and service-oriented architecture are reflected in this phase, including the skills enablement requirements for the project team members.

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12.3.2   Business Blueprint

The purpose of this phase is to create the business blueprint, which is a detailed process-oriented and technical documentation of the results gathered during requirements and design workshops. A blueprint consists of multiple documents and is considered to be a body of work that illustrates how the company intends to run its business utilizing SAP solutions. The business blueprint phase includes the same seven work streams as the previous phase.

Projects are based on the assumption that they create value. The business case describes benefits, which can be broken down into value drivers and value enablers. On an operational level, value needs to drive the scope of the implementation. From a blueprinting perspective, value should drive the solution design. This association is performed on process levels, and the project team typically produces a value map of KPIs and PPIs to measure the progress of value delivery.

Blueprinting is an iterative approach to solution design that is organized by processes. The modeling of to-be processes starts at the highest level and moves down the process hierarchy. The SAP process model has five process levels, of which scenarios, processes, process steps, and activities are managed in SAP Solution Manager. Typically, the first two levels of process design are delivered as part of the business process management work stream during project preparation.

We recommend supporting to-be process design with a focused as-is analysis process catalog, applications, and existing data models. As-is documents are intended to serve as a point of reference for the future solution design. The comparison of as-is and to-be processes drives organizational transformation needs.

SAP Solution Manager is intended to serve as the central knowledge repository during the full implementation lifecycle. Blueprinting follows agile principles and leverages best practices, prepackaged implementation content as described in Chapter 14, Process-Based Implementation Content, and techniques such as value prototyping (for details see Section 4.7), show-and-tell, conference room pilots, and sprints to illustrate SAP solution functionality and to visualize the solution design. Characteristics of agile techniques are iterations, time-boxed design, and visualization.

Blueprint content is developed as the result of a series of workshops that are chronologically organized in sequence with the process hierarchy. The business blueprint workshop concept provides detailed information on workshop facilitation and documentation generation. The final outcome of this work stream is a business blueprint, which is typically not a single document but a body of   docu-

ments that incorporate multiple design elements, such as requirements, models, function solution design, gap analysis, and technical and integration design.

The recommended approach is to manage and create blueprint documents in SAP Solution Manager. However, depending on the implementation scope and the absence of SAP Solution Manager, a document-based or minimalistic approach may be chosen, for which a template is available.

All blueprint variants adhere to the content and blueprinting deliverables as specified in blueprinting work streams. The business blueprint phase includes several deliverables, milestones, and key decisions as shown in Table 12.8.

Purpose	Deliverables	Milestones & Key Decisions
Align business requirements to the SAP business model	Complete and documented business design: ▶ Project plan update ▶ Subprocess definition document ▶ Subprocess flows ▶ Business activity scripts ▶ Key functional specs ▶ Business process master list	Complete design
Identify additional functionality requirements	Assessment of organization and business process changes	Phase quality assessment
Identify data input Requirements	Inventory of reports and conversions	Communication plan
Business process documentation	Confirmation of implementation date	
Obtain business sign-off on requirements		

Table 12.8 Business Blueprint Phase – Deliverables

After this short intro to the business blueprint phase, we will take a closer look at the value delivery considerations in this phase.

Value Delivery Considerations of Business Blueprints

The purpose of a value-based solution design is to determine value drivers and key process changes for the implementation project. Figure 12.27 shows value deliverables in light grey and process management and technical solution design deliverables in dark grey.
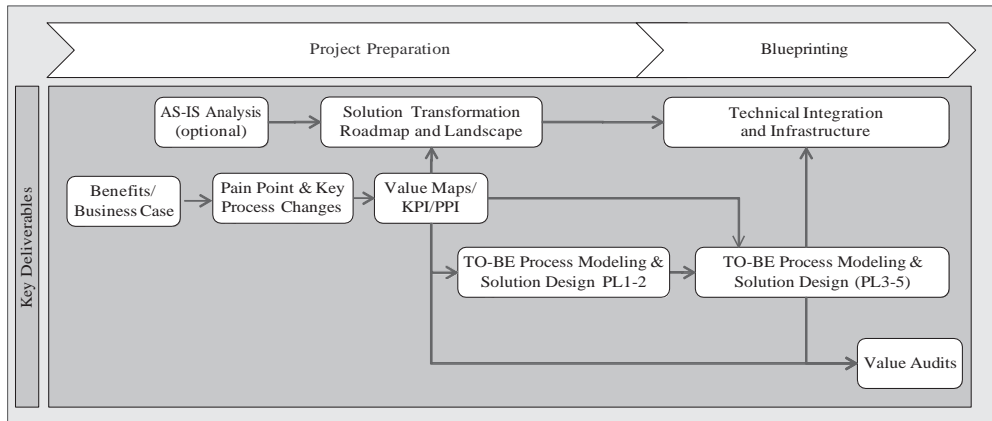

Figure 12.27   Business Blueprint Phase – Value Delivery Considerations

The inputs for value realization are based on outputs from value determination during project preparation. A business case, if available, is the starting point for value determination. Based on the input of process owners and business stakeholders, a pain point analysis is undertaken, and key process changes are determined. A key process change drives the value of a project. The value map correlates pain points, key process changes, and performance indicators and is thus the central deliverable for value determination. The depth of value determination in a project depends on the defined scope of the implementation. The deliverables of the ASAP methodology focus on a less extensive version of value determination.

The results of value determination are mapped to the process and solution design. A link is maintained through value maps, key performance indicators (KPIs), and process performance indicators (PPIs). At the scenario level, financial KPIs come into play, and at the process level, PPIs are the link to the value drivers.

Value realization enhances the ability of the project team to:

▶ Determine priorities for the solution design and manage scope

▶ Determine development needs to ensure that every solution enhancement maps to a value driver

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▶ Drive key decisions for the solution design

▶ Track the progress of key process changes

▶ Help tie process performance indicators (PPIs) to the business process hierarchy

Let's now take a closer look at the business process management considerations in the business blueprint phase.

BPM Considerations for Business Blueprints

Blueprinting describes the solution design that entails the technical and process components. The objective of business process management is to describe the solution from a business perspective. Process models serve as central communication tools to describe the design. Project preparation focuses on defining and decomposing business process levels 1 to 2 scenarios. Blueprinting refines the process hierarchy and associates value drivers to the process hierarchies down to process levels 3 to 5, which correspond to the process and process-step levels in SAP Solution Manager.

The business blueprint documents the solution design and therefore serves as the foundation of the solution built during realization. Process models are a central communication tool for the project team. Modeling helps define requirements, responsibilities, and dependencies. The primary changes for Business process management during blueprinting are included in five deliverables as illustrated in Figure 12.28.
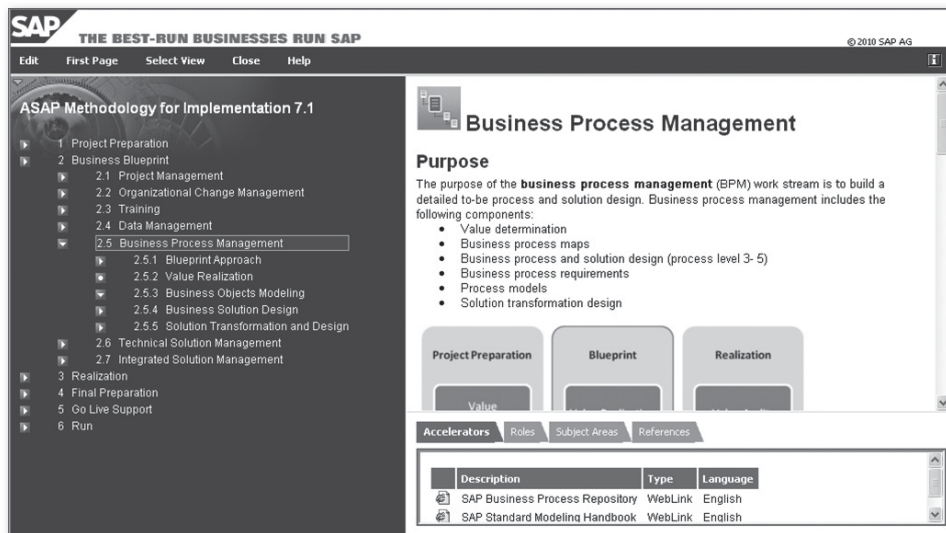

Figure 12.28 Blueprint Phase – Business Process Management

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▸ **Blueprint approach**

Blueprinting is based on a show-and-tell approach that leverages SAP demo environments and visualization techniques wherever applicable. The purpose of the subdeliverable solution manager and business process management is to transfer designed business processes into SAP Solution Manager. The approach is determined by whether or not a modeling tool was used during earlier phases to set up a business process structure. If the modeling tool SAP Enterprise Modeling by IDS Scheer was used, the business add-on to ASAP that delivers solution manager integration with SAP Enterprise Modeling by IDS Scheer can be activated. The following seven business add-ons to ASAP delivery content for SAP Enterprise Modeling Applications by IDS Scheer are available:

▸ Redocumentation using SAP Solution Manager and SAP Enterprise Modeling by IDS Scheer

▸ SAP Solution Manager integration with SAP Enterprise Modeling by IDS Scheer

▸ Enterprise Services Repository integration for SAP Enterprise Modeling by IDS Scheer

▸ SAP Business Process Optimization by IDS Scheer

▸ Process intelligence for SAP Process Performance Management by IDS Scheer

▸ Process publishing for SAP Business Server and Publisher by IDS Scheer

▸ SAP Enterprise Modeling by IDS Scheer (consolidated add-on)

More Information
For more information on these seven business add-ons to ASAP delivery content for SAP Enterprise Modeling Applications by IDS Scheer, please go to SAP EcoHub http://ecohub.sdn.sap.com/.

▸ **Value realization**

Covered in the previous subsection.

▸ **Business objects modeling**

In this deliverable you need to identify all of the business objects that are relevant for the scope of the implementation, such as organizational structures, master data, and so on. Business objects are associated with processes and reflected in applications. Understanding these relationships is essential for the overall integration and cross-process integrity. Business object modeling also

builds the foundation for service modeling, because a service-oriented architecture is intended to be implemented.

To support the business objects modeling deliverable, the SAP Standard Modeling Handbook can be applied. The handbook is linked as an accelerator to business objects modeling. The purpose of this handbook is to have a standard approach for executing modeling.

> **More Information**
>
> The SAP Standard Modeling Handbook is available on the BPX Community as a wiki (http://wiki.sdn.sap.com/wiki/display/ModHandbook/SAP+Modeling+Handbook+-+Modeling+Standards).

▶ **Business solution design**
Business solution design provides a process-based solution design that includes business requirements, process descriptions, and a functional and technical solution design. The approach is iterative and driven by the process hierarchy structures, referencing SAP standards and leveraging agile techniques to create transparency.

▶ Solution transformation and design
Solution transformation and design provides a detailed solution mapping to define to-be business processes. Each of the four bullet points listed below represents a solution track.

  ▶ **Core implementation**: configuration settings

  ▶ **SOA/composition:** detailed service-oriented architecture and composition requirements

  ▶ **Solution gaps and core enhancements:** detailed enhancement requirements

  ▶ **Third-party solutions:** available third-party solutions and detailed requirements for them

The inputs required for the business process management work stream during the business blueprint phase are the completed deliverables from the project preparation phase. Any outstanding deliverables that were not completed and therefore did not complete the project preparation quality gate must be completed to be used as inputs to the business blueprint phase.

The SAP Solution Manager project should be created and project standards put in place prior to beginning blueprinting. Additionally, the project teams should be

trained on how to use SAP Solution Manager to capture deliverables and process decompositions. Project team training for implementation project tools used during blueprinting, such as those used for modeling the processes, also should be completed prior to beginning the blueprinting process.

Now that we have taken a closer look at value delivery and business process management considerations, we will take a closer look at the service-oriented architecture considerations in the business blueprint phase.

SOA Considerations for Business Blueprint

The ASAP 7 core methodology introduces a set of service-oriented architecture (SOA) implications to be considered within the business blueprint phase. These build upon the deliverables of the preparation phase while introducing new SOA considerations related to solution design and technical solution management. Projects that have identified SOA as a component of their IT strategy must take a comprehensive approach to blueprinting.

The purpose of the SOA activities within the blueprint phase is to document the proper approach and technology set together with the needed business solution design and technical solution management plan. These two topics are equally critical for a clear blueprint of the proposed SOA-enabling solution landscape. If any of these are incomplete, the project team will not understand the SOA technical and integration process within the realization phase. The purpose of the SOA and composition deliverable in the business process management work stream is to generate all models and specifications required to start the actual development process for the composite application that will take place in the realization phase. This involves translating the business requirements into models that can be implemented.

The business blueprint phase starts by classifying business processes as use cases or technical processes. A high-level screen-flow model and a user interface mock-up are created for every use case. These models allow for aligning business and IT concerns. The corresponding departments can see how the composite works even before any code is implemented. As soon as stakeholders accept these models, they can be used as a basis for devising more technical models.

A technical screen-flow model shows how various screens work together and what kind of service requirements must be met. In addition, a mock-up template describes every user interface element in detail, which enables a steady flow of work during the implementation phase. SOA and composition also consolidate and

document the detailed service requirements and those from composite application design and development. These service requirements must be compared with SAP standard enterprise services to identify gaps and fits, which means differentiating among services that can be reused, services that have to be newly implemented, and services that need to be enhanced.

If you are applying SAP Enterprise Modeling by IDS Scheer, you can use the business add-on to ASAP that delivers Enterprise Services Repository integration for SAP Enterprise Modeling by IDS Scheer as illustrated in Figure 12.29.

Figure 12.29 Business Add-On that Delivers Enterprise Services Repository Integration for SAP Enterprise Modeling by IDS Scheer

The Enterprise Services Repository Integration for SAP Enterprise Modeling by IDS Scheer add-on supports process-driven requirements analysis, alignment of business process requirements and SOA, linking of business blueprints to service realization, reuse of existing interfaces and services, and modeling and sharing of multiple planning scenarios in SAP enterprise modeling before implementation, and requirements analysis can define the need for new services.

> **More Information**
>
> For more details on the business add-on to ASAP that delivers Enterprise Services Repository integration for SAP Enterprise Modeling by IDS Scheer, please go to SAP EcoHub http://ecohub.sdn.sap.com/.

The technical solution management work stream prescribes the installation of a viable, technical development environment that is available for use by the project teams to begin the realization phase. Once SOA requirements have been identified and the technical and integration SOA solution has been designed, you need

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to proceed with the planning and setup of the development environment (SAP NetWeaver Composition Environment), work breakdown structure (WBS) 2.6.7, as illustrated in Figure 12.30.
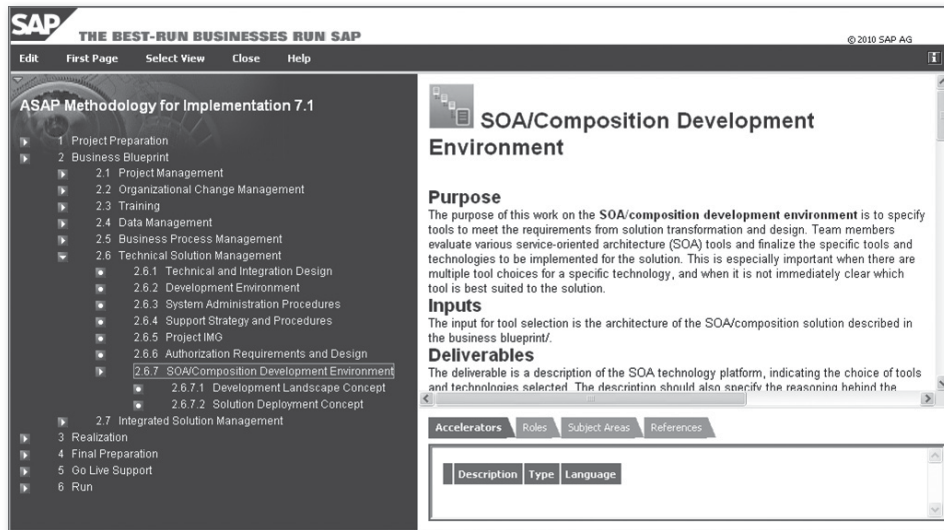

Figure 12.30 Technical Solution Management – SOA/Composition Development Environment

The purpose of the SOA/composition development environment (2.6.7) is to specify tools to meet the requirements from solution transformation and design. Team members evaluate various service-oriented architecture (SOA) tools and finalize the specific tools and technologies to be implemented for the solution. This is especially important when there are multiple tool choices for a specific technology and when it is not immediately clear which tool is best suited to the solution. The input for tool selection is the architecture of the SOA/composition solution described in the business blueprint. The deliverable is a description of the SOA technology platform, indicating the choice of tools and technologies selected. The description should also specify the reasoning behind the selection of the tools for the various layers. For more details please go to Chapter 13, Section 13.1.

In Chapter 13, Section 13.5, we will introduce the simple samples for enterprise services consumption, which are ready-to-run applications based on the most commonly used enterprise services and various SAP consumption technologies. The simple samples can be used for education and as a good starting point for working with SOA/composition.

The purpose of the development landscape concept (2.6.7.1) is to explain how an SOA-based solution introduces new infrastructure tools such as Enterprise Services Repository (ES Repository), a service registry, a process integration service bus, a composition environment, and so on, to a development landscape that may already contain other development infrastructure tools such as SAP Solution Manager or the system landscape directory and development infrastructure in the SAP NetWeaver technology platform.

The appropriate landscapes for these new tools need to be planned well in advance of solution implementation, because procurement, installation, and configuration of these systems may significantly affect the overall time line for the project.

The development landscape concept identifies the software tools and systems needed for the development of the solution. Further, it specifies the roles of developers in terms of the tools and systems to be accessed. It serves as an input to the planning of the physical development landscape.

Next we will take a look at the considerations in respect to skills that project team members need to have to practice the new ASAP methodology.

Consultants, Business Process Experts, Project Managers and Team Leads – Considerations for the Business Blueprint

The purpose of the business blueprint phase is to create the business blueprint, which is a detailed, process-oriented and technical documentation of the results gathered during requirements and design workshops. The business blueprint consists of multiple documents and is considered to be a body of work that illustrates how the company intends to run its business utilizing SAP solutions. To be able to do this, the process and application consultant must not only have knowledge of the capabilities of the applications, but also needs to have knowledge of the end-to-end business processes within his expertise area. The business process design needs to be detailed, including all of the different process objects and parameters, and it needs to have the end user in the center, including the need for a thorough understanding of the IT capabilities and flexibilities SOA/composition provide. After the details of the process design have been completed, the process and application consultant must be able to execute an equal mapping to the four solution transformation options, and he can only do this if he understands the four IT capability options:

▶ **Core implementation**
  Describe detailed configuration settings.

▶ **SOA/composition**
  Describe detailed service-oriented architecture and composition requirements.

▶ **Solution gaps and core enhancements**
  Describe detailed enhancement requirements.

▶ **Third-party solutions**
  Describe available third-party solutions and detailed requirements for them.

This new set of requirements calls for the process and application consultant need to obtain some new skills, which are provided via the business process expert role and skills set. You can find more details about this skill set in Chapter 15.

We will now go to the third phase, realization, and describe how value delivery, business process management, and service-oriented architecture are reflected in this phase, including the skills enablement requirements for project team members.

12.3.3   Realization

The purpose of the realization phase, which has the same seven work streams as the two previous phases, is to implement the business scenarios and process requirements based on the business blueprint completed in the previous phase. Initially, the baseline configuration, which represents the core business process settings, is performed, tested, and confirmed. This is followed by a series of configuration and development cycles to implement the entire end-to-end solution. The solution is tested in several cycle tests and in focused end-to-end integration tests. Configuration is documented in SAP Solution Manager. All developments such as enterprise services, composite applications, interfaces, data conversion programs, reports, and any required enhancements are built and documented in SAP Solution Manager. Legacy data conversion programs are created and tested. The production system is installed during realization. In parallel with the configuration process, end-user documentation and end-user training documentation are created, according to the training analysis and strategy defined in the business blueprint phase. Table 12.9 shows the deliverables, milestones, and key decisions to work on during the realization phase. For each deliverable, the ASAP Roadmap explains in detail the purpose, inputs, and outputs and, where applicable, gives further details and information about the expected result.

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Purpose	Deliverables	Milestones & Key Decisions
▶ Build and test a complete business and system environment ▶ Develop training material and end user documentation ▶ Obtain business approval	▶ Test data and configuration ▶ Business process procedures ▶ Quality assurance system environment ▶ Production system environment ▶ Develop and test interfaces, conversions and reports ▶ Evaluate and enhance security and controls ▶ End-user training material and plan ▶ End-user training system environment ▶ Data conversion plan ▶ User acceptance test	▶ Project team trained (realization) ▶ Final design and configuration ▶ Integration test ▶ End-user system infrastructure ▶ User acceptance ▶ Phase quality assessment ▶ Readiness review

Table 12.9 Realization Phase – Deliverables

After this short intro to the realization phase, we will now take a closer look at the value delivery and business process management considerations in the realization phase.

Value Delivery and BPM Considerations for Realization

The purpose of the business process management work stream during the realization phase is to build the solution based upon the process and solution design created during the business blueprint phase and "realize" the solution design by building functional business processes during baseline and final configuration, complete SOA and composition development, complete workflow, reports, interfaces, conversion, enhancement, forms (WRICEF) developments, and create testing to ensure consistency and continuity in the productive solution. Business process procedures and end-user training are also created during this phase,   including

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definition of requirements and set-up for business process monitoring, which both need to cover IT and business process monitoring.

Realization of the solution design includes the development of technical specifications, data design, baseline and final IMG configuration resulting in functioning business processes, and successful completion of both unit and integration testing (cycles 1 to 3) for each of the business scenarios and business processes as designed during the blueprint phase.

Testing of the realized solution is completed during the realization phase to validate that the solution built matches the solution as it was designed. The realization phase includes activities and deliverables that close the cycle of design and build. Deliverables created during realization include the following:

► Configured general settings and organizational structures

► Configured scenarios and business processes

► Complete and approved configuration reference documents

► Development objects documentation

► Implementation of development objects – WRICEF

► Development of enterprise services

► Development of composition applications

► Enterprise services and composition technical documentation

► Manual and automated test cases

► Completed test cycles

► Business process procedures (BPPs)

► Implemented business process monitoring capabilities

By completing the deliverables of the realization phase correctly, the project completes the build of the designed solution, documents the build activities, and creates and executes test scripts that confirm that the solution built meets the requirements and design documented in the blueprint deliverables. The realization phase confirms that the solution is built as defined in the design documentation and works as expected.

The achievement of the goals of the implementation project are essential to the successful delivery of the SAP solution. Completion of the build and test phase provides the inputs to the final prep and go-live phase, which will implement the solution into the productive landscape and turn it over to the end users.

The primary changes for business process management during the realization phase are included in the following work packages:

▶ 3.5.1 Value audits
Value audits assist with the tracking, monitoring, and controlling of the value drivers and key process changes during each phase of the project. Value audits ensure that the project lives up to the initial value expectations as defined in the initial business case. Value audits enhance the capabilities of the project team to manage expectations and focus on key deliverables. They support the transparency of value delivery during the project and assist in tracking key process changes during the project. The key deliverable for a value audit includes the value status (value and cost actuals vs. targets and issues) and identifies measures to achieve the value targets and is updated regularly throughout the project phase.

▶ 3.5.9 Business process monitoring
As shown in Figure 12.31, business process monitoring describes the considerations that are required to define business process monitoring requirements in respect to business process stabilization, business process improvement, and business process optimization and innovation from both an IT and a business perspective. This deliverable also needs to select and set up the business process monitoring tools.
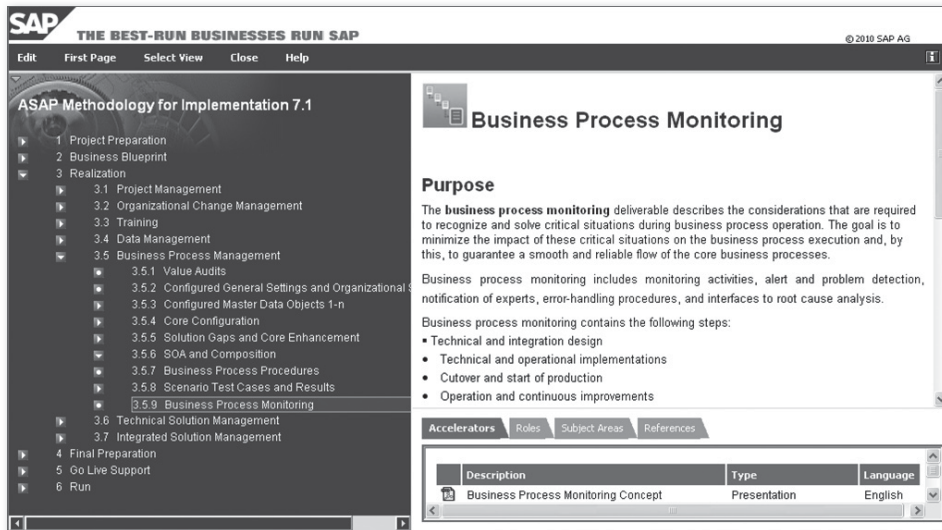

Figure 12.31 Business Process Management – Business Process Monitoring

Let's take a closer look at business process monitoring.

The term *business process monitoring* is widely used in the SAP community, and everybody has a different understanding of business process monitoring. This is not really surprising because monitoring capabilities have to serve different target groups and different purposes. There cannot be one business process monitoring tool that serves all. If there were one, you could be sure that (like all other tools that try to serve each and every purpose) this tool would provide everything in a mediocre manner but nothing in excellent quality.

This is why SAP decided to follow a different path and provide different business process monitoring tools that can clearly focus on specific target groups and/or specific purposes. Before we look deeper into those tools we want to clarify another term. In public discussions you also hear the term *business process optimization* (in a broader sense) a lot, where again everybody has a different understanding of what *optimization* really means. SAP split this term into three different pieces: business process stabilization, business process improvement, and business process optimization (in a narrower sense). This split may look somewhat artificial at first, but it helps understand why different business process monitoring tools are provided and which tool should be used for which purposes (see Figure 12.32).

▶ **Business process stabilization**
You current business process is operated at a certain level. However, sometimes an exception occurs, as illustrated in Figure 12.32. This exception could be, for example, a failure in an interface communication or a failure during the background processing, so that certain business documents are not created or updated. The output level of your business process drops to a lower level. Business process stabilization means either avoiding the process exception in the first place or, if the exception occurred, resolving the problem as fast as possible to bring the process output back to the expected level.

▶ **Business process improvement**
Your business process is operated without exceptions or with a minimum of exceptions as described above and illustrated in Figure 12.32. By looking at the output level of the process you determine that the process does not achieve 100% of what it was initially planned to achieve when the business process was designed and implemented. This may be related to inefficiencies caused by end users who do not use the SAP system as intended. Or this may be caused by configuration issues within the process or old open business documents that are not properly closed and removed from the system. Business process

improvement means the current output level is increased in the future, ideally up to the optimum that can be achieved with the initial process design.

▶ **Business process optimization**

Your business process is operated stably, and all improvements mentioned above have been realized; that is, the output level of the process is 100% according to plan as illustrated in Figure 12.32. But by comparing your various business KPIs and PPIs with industry benchmarks or competitors, you find out that your process is still not good enough or that you are missing the competitive edge. Your process needs some further process innovation, or the process needs to be optimized to set the bar for the process output level even higher than the current 100%. The current process design has to be changed.
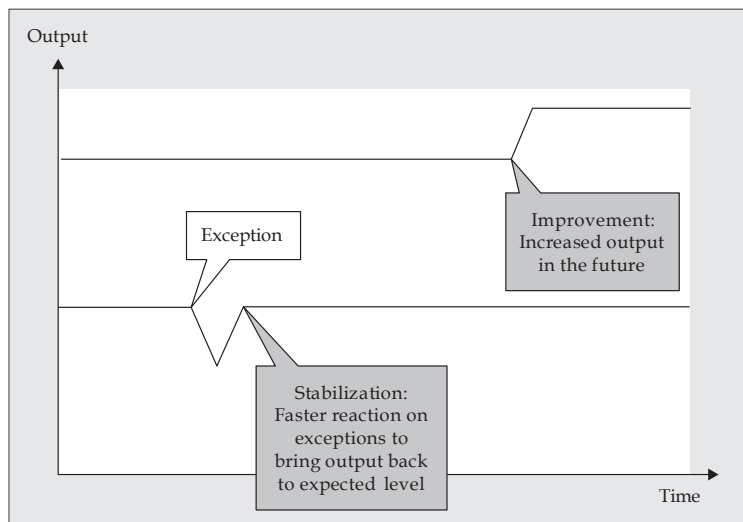

Figure 12.32 Business Process Stabilization and Improvement

The logical flow can be as follows. Company X implements an SAP solution with the target standardizing and improving the current business processes and thereby obtains a certain return on investment (ROI) within a certain time frame based on optimized and standardized processes. This initial plan can only be fulfilled if the newly implemented business processes are running smoothly and stably; that is errors in interfaces and background processing should be minimized, and functional errors should be avoided. In this sense the business process stabilization phase protects the initial investment made by company X. To achieve the ROI as fast as possible the business processes should be operated at 100% output level.

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Here the business process improvement phase should help ensure that the business processes are operated at an optimum level according to plan. If company X then decides that their business processes should be operated at an even higher output level or even more efficiently, additional investment is required to reengineer or innovate the existing processes in a business process optimization phase.

From a target group perspective it can be generally stated that business process stabilization is mainly the task of the IT department, whereas business process optimization is clearly the task of the business department. Business process improvement is the grey zone where both IT and business have to collaborate, although more responsibility for this is normally found within business, which is illustrated in Figure 12.33.
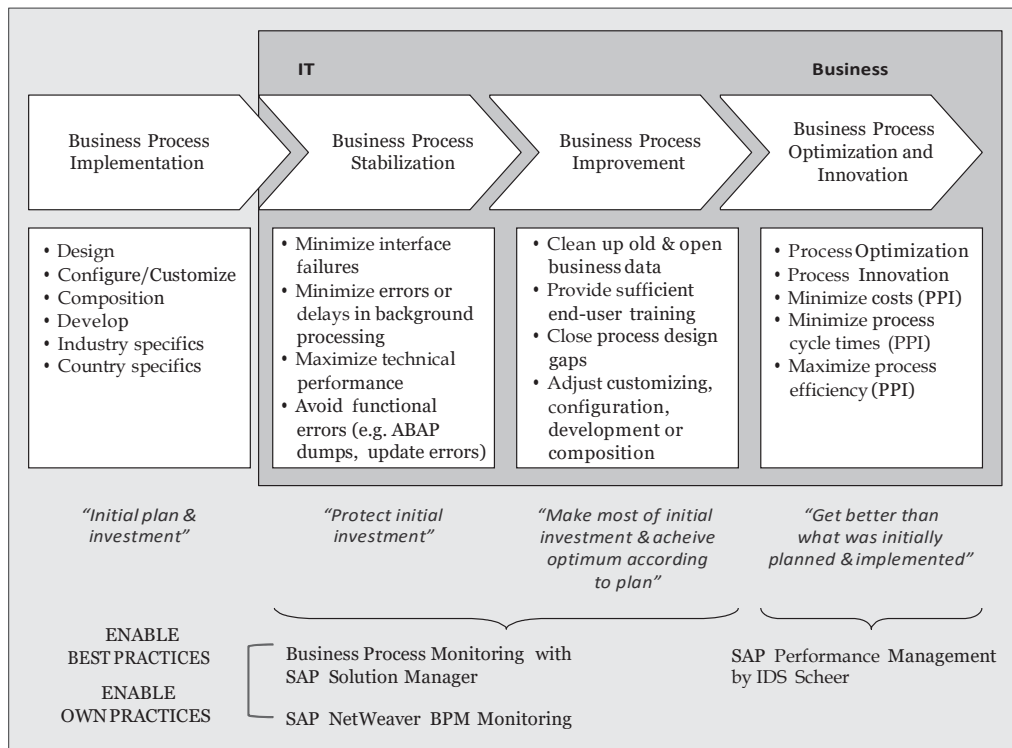

Figure 12.33 Business Process Monitoring

From a business process monitoring tool perspective, business process monitoring can support the two phases (business process stabilization and improvement) in

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SAP Solution Manager. Here the focus is on SAP Business Suite's Best Practices that are mainly based on transaction codes and ABAP reports. Business process monitoring in SAP Solution Manager provides, on the one hand, more technical monitoring capabilities for background jobs (single jobs and BW process chains) for all common SAP interface technologies (IDoc, tRFC, qRFC, BDoc, batch input, flat file, SAP NetWeaver PI), ABAP dumps, update errors, etc.). On the other hand, about 300 preconfigured application-specific key figures are provided out of the box and currently cover SAP ERP, SAP Customer Relationship Management (CRM), SAP Supplier Relationship Management (SRM), SAP Advanced Planning & Optimization (APO), and industry specifics for SAP Apparel and Footwear, SAP for Automotive, SAP for Banking, SAP for Retail, and SAP for Utilities.

The business process monitoring tool also allows the monitoring of you own practice, also referred to as composite applications. You can build the composite applications on top of the SAP Business Suite's Best Practices with the application core processes and on arbitrary backend systems. Composite applications follow the SOA paradigm of "nonintrusiveness," which means these applications are bound to provide modification-free process extensions to the core business applications. Below, you will find examples that you can use for your own practice:

▸ With mobile workflow approval on the BlackBerry or iPhone you improve the cost efficiency of your workflow processes.

▸ You can leverage emerging social media channels such as Twitter within SAP CRM to reach out to a broader network of customers, run more effective marketing campaigns, and track them.

▸ You can leverage emerging social media channels such as Twitter within SAP CRM to receive open feedback from customers, provide superior customer service, and monitor customers' opinions about products or services

▸ The customer fact sheet solution offers customer service agents and sales representatives a 360-degree view of customer data.

> **More Information**
>
> You can find more information about these own practice processes and solutions at SAP EcoHub, http://ecohub.sdn.sap.com/, and in Chapter 14, Section 14.1.2.

The composite applications can be built on top of the SAP Business Suite's Best Practices with the application core processes and on arbitrary backend systems. SAP NetWeaver BPM provides the business process monitoring capabilities to monitor composite applications' own practices.

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 If you are looking at process efficiency analysis from a business perspective with dedicated process performance indicators (PPIs), you can use SAP Process Performance Management by IDS Scheer to identify where process reengineering is appropriate to optimize your business processes and reach even higher process efficiencies or higher output levels than initially planned. SAP Process Performance Management By IDS Scheer is available as a business add-ons to ASAP via SAP EcoHub, http://ecohub.sdn.sap.com/, as illustrated in Figure 12.34.

Figure 12.34   Business Add-On to ASAP that Delivers Process Performance Management by   IDS Scheer

The input required for business process management during realization is the completed deliverables from the business blueprint phase. Any outstanding deliverables that were not completed and therefore did not complete the business blueprint quality gate must be completed to be used as inputs to the realization phase.

Now that we have taken a closer look at value delivery and business process management considerations, we will look at the service-oriented architecture considerations in the realization phase.

SOA Considerations for Realization

The SOA technical design and specifications developed within the business blueprint phase have a significant influence on how services ought to be realized in the best possible manner. Done properly, the SOA efforts within the blueprint phase consider all of the various design and implementation alternatives. The realization phase aims to formalize the final realization decision for each service and provides justification for the choice.

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The purpose of the SOA work stream during the realization phase is to develop, implement, and document the enterprise services and composite applications as defined during the business blueprint phase. The approach to implementing SOA within the realization phase is segregated into two distinct technological paths:

▶ **Path 1**
Explains the inputs, technique and accelerators for enterprise services. These represent a standards-based way of encapsulating enterprise functionality and exposing it as a reusable business service that can be combined with other services to meet new requirements.

▶ **Path 2**
This path works through the aggregation of enterprise services to compose new applications and enable new business processes to take shape.

Each path has a very different starting point, input technique and accelerators. Enterprise services are sourced from a service provider such as the Enterprise Services Repository (ES Repository), whereas composite applications are often sought to aggregate these same system-centric services within human-centric scenarios.

By correctly completing the SOA/composite deliverables prescribed within the realization phase, you will not only ensure the completeness of your overall composite solution, but will also have documented the build activities and confirmed that your composite solution meets the requirements and design prescribed by the blueprint deliverables.

The new version of ASAP includes the following SOA deliverables that are included in the business process management work stream: The first is SOA/composition (3.5.6). The purpose of the SOA and composition deliverable is to implement and document the enterprise services, including developing and realizing the composite application. The business process, functional design, and specifications from the business blueprint phase serve as input. The work stream has two substreams:

▶ 3.5.6.1 enterprise services development
The purpose of the enterprise services development subdeliverable as illustrated in Figure 12.35 is to implement and document the enterprise services modeled in the business blueprint phase.

The enterprise services that are modeled can be exported in the Web Services Description Language (WSDL) format from the ES Repository. These can, in turn, be imported into the backend, and the corresponding implementation

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proxies (or stubs) can be generated. The necessary service logic must be coded in the generated implementation proxy to complete the service implementation.
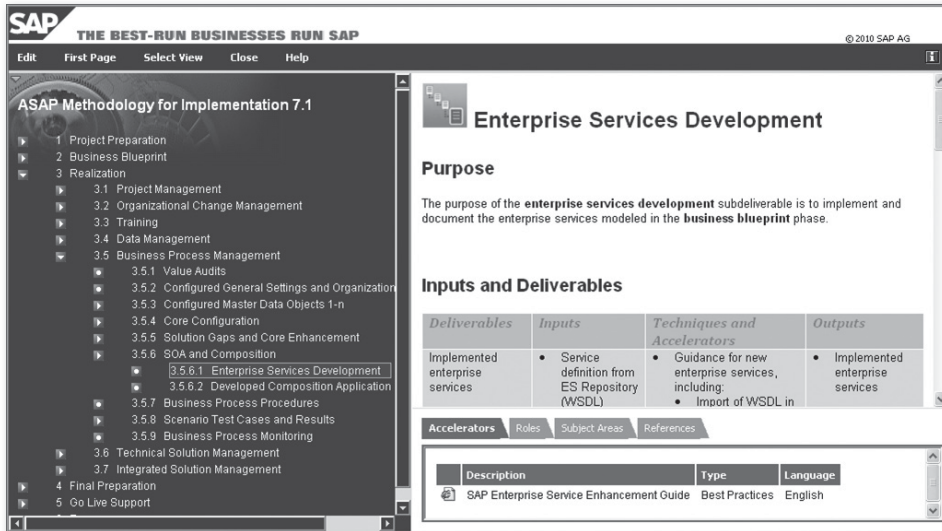

Figure 12.35 Business Process Management – SOA and Composition – Enterprise Services Development

Documentation of enterprise services is an important activity for SOA-based solutions. Because the reuse of enterprise services is one of the cornerstones of a successful service-oriented architecture, even services that are modeled in the best way possible need to be accompanied by thorough documentation to ensure widespread reusability.

Enterprise services documentation should describe the technical contract between the service provider and the consumer. This is required to understand the services' behavior in detail. Typically, these contracts group the service description documents and technical diagrams and may be supplemented by other, nontechnical documents.

The service models in ES Repository, which are created in the design activity, are a binding contract between the consumer and the service provider. These models therefore provide a very good starting point for documenting enterprise services. Ensure that the service models in the ES Repository include these

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components: process component models, integration scenario models, process component interaction models, and signature definition (contract).

Governance plays a central role in the implementation of services. Governance of an SOA implementation must include standardizing the general runtime behavior of enterprise services and their static models by establishing clear design and programming paradigms and guidelines. For example, the exception reporting and handling strategy should be similar across the various service implementations. This kind of governance is a prerequisite for ensuring easy-to-use, reusable services and achieving higher productivity during implementation. As mentioned earlier in the chapter, we recommend that the deliverable project standards (1.1.5) have an enterprise services design standard (1.1.5.11).

▶ 3.5.6.2 developed composition application
The purpose of the developed composition application subdeliverable as illustrated in Figure 12.36 is to develop and realize the composite application where the solution design, development specification, solution architecture, development process, guidelines, and so on serve as input.
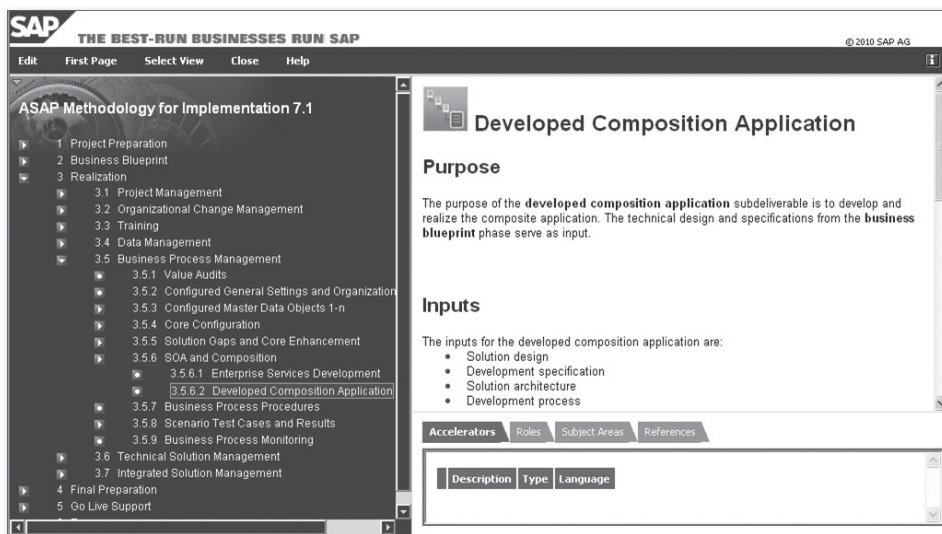

Figure 12.36 Business Process Management – SOA and Composition – Developed Composition Application

Composite applications are typical consumers within an enterprise SOA system landscape and are usually built on existing services and infrastructure. They combine these services into user-centric processes and views, supported by their own business logic and specific user interfaces. These typically span several application areas and may even cross enterprise boundaries. Composite applications are loosely coupled with the backend systems on which they are based, resulting in a new logical application tier, which can be deployed and upgraded independent of the backend infrastructure. In many cases, composite applications are combined with business integration scenarios to establish corresponding business network solutions.

A human-centric composite scenario typically consists of the following:

▶ User interface
This is typically created with a graphical modeling approach (SAP NetWeaver BPM, BRM, Visual Composer, the Web Dynpro development environment, Adobe Forms, and so on) and is therefore easily adjusted to specific needs.

▶ Composite process
Process flow is modeled with graphical tools, and workflows can be assembled from reusable blocks.

▶ Business objects and local services
Composite logic is implemented on modeled business objects, based on imported enterprise services.

In some cases, primarily human-centric composite scenarios are combined with system-centric integration scenarios, which means the overall composite process comprises both human-centric and system-centric parts. For more details see Chapter 13, Section 13.1.

The starting point for the implementation of enterprise services is the service model, which is the output of the business blueprint phase. After gathering the inputs prescribed within WBS 3.5.6.1 and reviewing that section's roadmap thoroughly, familiarize yourself with the accelerator called Building an End-to-End Enterprise SOA Scenario. This document will explain the SOA service provider and consumer models necessary for you to understand the concepts of the enterprise service lifecycle. The next step is to refer to the second accelerator, SAP Enterprise Service Enhancement Guide, which is required to modify the behavior of out-of-the-box services exported from the Enterprise Services Repository (ES Repository) to fit your project's requirements.

The detailed enterprise services implementation process outlined within the two accelerators together with the abbreviated explanation available within WBS 3.5.6.1 represent foundational knowledge for those overseeing the project activities. However, the enterprise services implementation within the realization phase should be delegated to an SOA engineer.

The enterprise services implementation would not be complete without proper detailed documentation of the technical contract between the service provider and the consumer services. Typically, these contracts group the service description documents and technical diagrams and may be supplemented by other, nontechnical documents.

To complete the service documentation, any other semantic or technical information that the service owner wants to publicize can be added. This documentation can also be enriched by service-level agreements (SLAs) for the specific enterprise services.

It is understood that composite applications that enable enterprise services need to reflect certain preferred business intents. That intent should be well described within the inputs of WBS 3.5.6.2, created during the blueprint phase. Reviewing and understanding the phase inputs should be the first step toward understanding the project perspectives of creating composite applications.

> **More Information**
>
> The detailed composite application implementation process outlined within the Building an End-to-End Enterprise SOA Scenario accelerator together with the abbreviated explanation available within WBS 3.5.6.2 represent foundational knowledge for those overseeing the project's SOA activities. For more details see Chapter 13, Section 13.1.

The composite application implementation would not be complete without proper documentation of the Implementation Guide (documentation about how to deploy the separate parts) and development documentation.

In Chapter 15, Section 15.4 we will introduce the SOA kit, an add-on to ASAP. The SOA kit empowers various roles within IT implementation projects. The kit provides hands-on documentation, that is, accelerators and samples of key topics such as governance and methodology and guidance about architecture patterns, business add-ons, consulting services, and educational offerings. For more information on the SOA kit, an add-on to ASAP, simply go to http://www.sdn.sap.com/irj/sdn/soa-kit.

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The last topic we will cover is considerations for skills that project team members need to have to practice the new ASAP methodology.

Consultants, Business Process Experts, Project Managers, and Team Leads – Considerations for Realization

The purpose of the realization phase is to implement the business scenario and process requirements based on the business blueprint completed in the previous phase. As before, team members continue to carry out the following activities, but within the framework of value delivery: configure the system, continue to define system roles and authorizations, regardless of offshore or onshore locations, and go through third-level project team training and end-user training. The project team along with the project managers needs to ensure that the solution is ready for the customer.

During realization, consultants build on deliverables created in the business blueprint phase and work with the technical teams in an integrated fashion. Ultimately, teams that execute configuration, development, and composite applications need to ensure that the system meets all of the business requirements that were defined in the business blueprint document so that project managers and auditors can meet traceability requirements and user acceptance of the solution.

The project manager needs to run the project more as a continuum of deliverables, rather than as isolated deliverables. The deliverables are linked in a chain, and the project manager's role is to ensure that teams are ready at the proper time for the handovers.

We will now go to the last three phases: final preparation, go-live support, and the run phase and describe how business process management and service-oriented architecture are reflected in these phases, including the skills enablement requirements for the project team members.

12.3.4   Final Preparation, Go-Live Support, and   Run

The purpose of the final preparation phase is to finalize readiness of the solution and its supporting tools and processes for production go-live. This includes, but is not limited to, system tests, end-user training, system management, and cutover activities (including data migration). The phase deliverables also enable the resolution of all crucial open issues. On successful completion of this phase, the business is ready to run the live SAP software system. During this phase, the

following activities are also completed: ensuring the execution of organizational change management (OCM) plans and ensuring functional and technical support for the production system. The major work streams for final preparation are: project management, organizational change management, training, production support readiness, approved nonfunctional tests, and production cutover.

The support organization is put in place, and end-user training is completed. The phase deliverables also enable the resolution of all crucial open issues. At the end of this phase the production system is switched on, and business operations start in the new environment.

The purpose of the go-live support phase is to provide support for the solution during the period immediately following production cutover. Exceptional items such as additional production support, exceptional business monitoring processes, and extraordinary technical support are planned and executed in this phase. In addition, the disposition of all issues encountered in the transition to the new solution is determined and documented.

At the end of the designated extra-care period, sustaining production support processes planned in final preparation and executed as part of go-live support become the core support for continuous improvement in the ongoing solution. The major work streams for go-live support are project management, organizational change management, training, production support, and transfer to solution.

Final preparation and go-live support have deliverables, milestones, and key decisions to be worked on during the phase as illustrated in Tables Table 12.10 and Table 12.11. During the final preparation phase, the deliverables reflect the integrated nature of the solution — hence the reason for having the work streams of data management, business process management, technical solution management, and integration solution management merge into the following:

► Production support readiness

► Approved technical and operational tests

► Production cutover

In go-live support these work streams become:

► Production support

► Transfer to solution

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Purpose	Deliverables	Milestones & Key Decisions
Prepare system for production release	Data converted	Organizational changes implemented
Prepare the internal and external organization for go-live	Cutover plan	Go/no-go decision
	End users trained	
	End user system IDs created	
	System support Organization in place ▶ Help desk ▶ Technical support	
	Operational production system environment	

Table 12.10 Deliverables for the Final Preparation Phase

Purpose	Deliverables	Milestones & Key Decisions
▶ Business owns and executes new business processes and systems ▶ Monitor business process results ▶ Monitor production environment ▶ Establish center of excellence for support and enhancements	▶ Live production environment ▶ Operational help desk ▶ Cutover and conversion activities completed ▶ Post go-live end-user training ▶ Updated business case ▶ Lessons learned	▶ Go-live ▶ Project close

Table 12.11 Deliverables for the Go-Live Support Phase

For each deliverable, the ASAP Roadmap explains in detail the purpose, inputs, and outputs and, where applicable, gives further details and information about the expected result.

Let's now take a closer look at the business process management considerations in the final preparation and go-live support phases.

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BPM Considerations for Final Preparation and Go-Live Support

The final preparation and go-live support phases of the project, as they relate to business process management, include the final readiness of the business and support processes for cutover and production go-live and the completion of all project documentation so the content of the project can be moved into the solution in SAP Solution Manager. At this point in the methodology, many of the work streams begin to integrate as the design and build of the solution is completed, testing is being finalized, and cutover preparations are underway.

There is no formal business process management work stream during the final prep and go-live support phases, but rather the finalization and preparation for operations take place as part of the production support readiness (4.4) and production support (5.4) work packages.

The final preparation phase deliverables reflect the integrated nature of the solution, and the work streams of data management, business process management, technical solution management, and integration solution management merge into the following work streams:

▶ 4.4 production support readiness
  Ensures that the resources and processes are in place to support the solution after cutover. This includes the sub–work stream business process operations (4.4.1.5). This work stream contains the deliverables associated with business process management and is designed to ensure that processes are in place to monitor and manage business-critical operations and core business processes.

▶ 4.5 approved technical and operational tests
  Includes the confirmation that the solution is ready for use in production.

▶ 4.6 production cutover
  Includes the cutover to production and go-live. All organizational business, functional, technical, and system aspects of the project are production-ready.

The go-live support phase deliverables further integrate the previous work streams and become simply:

▶ Production support

▶ Transfer to solution

The business process management activities are integrated into the work stream of transfer to solution (5.5). The purpose of this stream is to prepare to   transfer

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the business process hierarchy and all associated deliverables into the productive solutions in SAP Solution Manager. It has two substreams:

▶ 5.5.1 solution manager update
All deliverables, open issues from cutover and final prep, lessons learned, and project management plans are finalized. The SAP Solution Manager project is reviewed for completeness including deliverable status reports to ensure that all deliverables have the Released status value assigned and are locked for changes.

▶ 5.5.2 solution documentation
The purpose of this work package is to provide the framework for monitoring business processes, KPIs, and PPIs through the lifecycle of the productive solution. SAP Solution Manager provides the central management platform, and the content moved into the solution becomes the primary documentation for this support.

From a functional project team member perspective, the focus of both phases is to finalize the documentation of the solution and test results, prepare for production support of the business processes, and implement production support operation processes. The project teams need to ensure that the core business process documentation including configuration, development, and testing documentation is completed.

Completion of documents means that all documentation has the status "Released." This must be done prior to moving the project contents into the productive solution, in SAP Solution Manager, because once a productive business process (in a solution) is "checked out" for maintenance, the entire process cannot be checked back in unless all documents have a Released status. Therefore, if the documentation was not finalized prior to go-live, the documentation would need to be finalized prior to moving the adapted productive business process back into the productive solution.

This is of primary importance, and anyone working with the processes and preparing them for transfer to the solution during this phase of the project needs to ensure that all documentation is complete, with the Released status (or a similar status that indicates the document is complete). For most team members this will be their primary activity during these phases — ensuring the completeness of the documentation. Business processes are moved into the solution individually, so as the validation is done, the solution can be built using the content from the SAP Solution Manager project.

Once the business processes are transferred into the solution, the content of the solution is used for operations, maintenance, and optimization of the business processes from both an IT and business perspective. Business process monitoring (3.5.9), as described earlier in the chapter, can now be activated to start the monitoring to support business process stabilization, business process optimization, and business process improvement. It is also in this phase that you can prepare to publish your business processes to the various audiences.

> **More Information**
>
> To support this activity you can apply the business add-ons to ASAP that implement SAP Business Server and Publisher by IDS Scheer as illustrated in Figure 12.37. For more details please go to SAP EcoHub: http://ecohub.sdn.sap.com/.
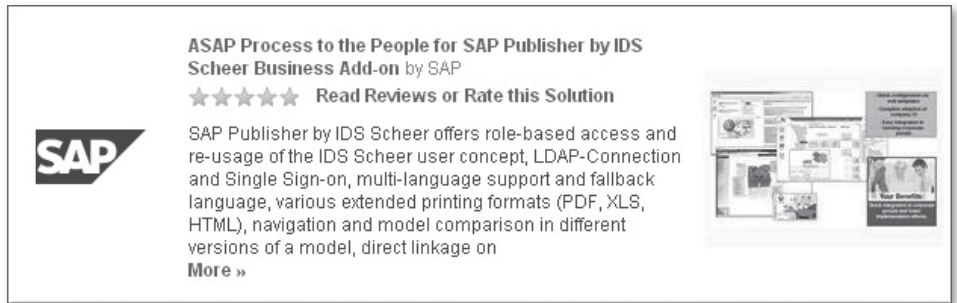

Figure 12.37   Business Add-On to ASAP Delivering Content for SAP Publisher by IDS   Scheer

You can run reports which can be run from Transaction SOLAR_EVAL to verify that all documents in the project have the Released status assigned and are ready to be transferred. Project management completes their project closing activities, and all outstanding issues are resolved or have a plan for resolution.

The solution is set up and ready to receive the business process hierarchy (BPH), and the content of the project is transferred over and the project is closed.

Keep in mind that all deliverables from each of the previous phases have to be complete by this stage, and incomplete deliverables will adversely impact the project's ability to go-live and/or deliver business process operations support.

Now that we have had a closer look at the business process management considerations, we will take a closer look at the service-oriented architecture considerations for final preparation and go-live support.

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SOA Considerations for Final Preparation and Go-Live Support

The ASAP methodology introduces a set of service-oriented architecture (SOA) efforts to consider within the final preparation and go-live support phases. These build upon the deliverables of the prior phase while introducing new SOA considerations related to the governance model for operations.

SAP projects with identified SOA as a component of the IT strategy must take a comprehensive approach to the following considerations within the final preparation and go-live support phases: The governance model for operations extended business flexibility, facilitated through new technologies and SOA, increases the complexity of individual application management tasks. A governance model for end-to-end operations encompasses the organizational model, operational processes, the collaboration platform, quality management, and continual improvement, each tying into the customers' SOA strategies. The creation of a customer CoE to oversee the governance model requires an organization with specialized roles for an integrated approach to quality management for solution operations, end-to-end enabled operational processes, and a technology platform capable of matching the solution complexity.

In the final preparation phase and go-live support, you become productive — packaging and deploying SOA applications, configuring applications for runtime (adapted to the IT landscape), testing and validating applications, and executing deployed SOA applications. To make enterprise SOA deliver on this promise, this ASAP promotes the creation of a holistic approach to good governance for your SOA initiatives. The governance model for operations seeks to describe governance applied to the runtime aspects of SOA. It typically includes service monitoring, security, and management with a runtime governance policy system.

A governance model for SOA operations becomes even more important as volumes scale and when multiple application service servers are required to support the workloads.

Your starting point should be in the governance model for operations section in WBS 4.4.1.4 of the final preparation phase. Note that you will encounter the same content in the go-live support phase WBS 5.4.1.4. In each of these WBS areas, the ASAP methodology promotes the creation of a governance model for operations set along with the procedure described in the SOA Readiness link within each WBS.

Subdeliverables prescribed in WBS 4.4.1.5 and 5.4.1.4 are shared among other aspects of the governance model for operations and may not necessarily be aimed

directly at SOA. Nonetheless, you should consider these in your approach to SOA governance, to include:

► Determined maturity level

► Defined vision and strategy

► Defined implementation roadmap

► Defined governance fundamentals (e.g., boards, organizational model, sourcing model)

► Defined process model and relevant processes

► Defined essential architecture standards

These factors are part of a work package ensemble of deliverables that together form the governance model for operations. Under the Topics section of each WBS, you will find details of each subdeliverable together with links to supporting documentation. For more details please go to Chapter 13, Section 13.1.

More Information

For the SOA governance model you can also apply the business add-on to ASAP that implements SOA governance and strategy. You can find more information about this add-on in Section 12.4.3. Included in the SOA kit is an add-on to ASAP, http://www.sdn.sap.com/irj/sdn/soa-kit, described in Chapter 15, Section 15.4.

The last thing we will look at is the considerations for skills that project team members need to have to practice the new ASAP methodology.

Consultants, Business Process Experts, Project Managers, and Team Leads – Considerations for Final Preparation and Go-Live Support

All work stream leads involved in the final preparation phase assist the project managers in making certain that KPIs and PPIs that were established within the value delivery framework during the project prep phase are documented, complete, and signed off; work with the technical teams to ensure that production support processes are established, that is, volume and stress tests are performed; assist in refining and validating cutover plans; and assist with knowledge transfer and documentation.

Consultants should also keep in mind that comprehensive end-user training is an essential part of this phase, and the leads may be asked to work with the education team and assist in end-user training and documentation.

During the go-live support phase, teams should have a basic understanding of the various services that SAP offers such as customer program optimization and SAP Security Optimization. For example, a key service is SAP EarlyWatch, where experts from SAP analyze the system's technical infrastructure. The aim is to ensure that the system functions as smoothly as possible. The purpose of the SAP EarlyWatch service is to improve the performance of the live system by preventing system bottlenecks. The underlying concept of SAP EarlyWatch is prevention: taking appropriate action before a problem situation develops.

The production support work stream and Basis team leads play a key role in this phase. Along with services, many SAP customers need help with managing complex IT solutions, and the new ASAP methodology guides the customer through setting up a center of excellence (CoE) or a help desk. The customer COE is a facilitating organization that implements the methodologies for end-to-end operations and reports and enforces them. Therefore, an appropriate governance model is the core for establishing an effectively empowered customer CoE. Note that in small organizations, though less formal, the leadership team should still come up with a strategy for how to transition their resources going forward.

Last, the information and the business processes can be taken over to a productive solution in SAP Solution Manager and provide the platform for follow-up scenarios in Run SAP such as business process monitoring, change request management, upgrade projects, and releases.

While the OCM and training teams are concentrating on end-user education needs and support, the production team plays a key role during this phase.

There are two critical periods during the going live process. The production support plan must be executed within the first few days, the results checked, and any issues or problems quickly resolved. Following these first few days, the long-term monitoring of issues must be addressed, particularly system performance, capacity, and functions.

It is important that whenever a problem arises, end users know who to contact and how. The help desk is particularly important in the first weeks after going live, but you require help desk support throughout the production life of your SAP system. A CoE helps customers develop and hone the skills of their resources who transition from a project environment to production support. A help desk is a single point of contact with access to internal first-level support for hardware, network, operating system, database, training, and application system problems. First-level support personnel must not only possess special knowledge in   these

areas, but must also have company-specific knowledge concerning organization and processes.

KPI/PPI management does not finish after going live; activities to improve the business processes continue as mentioned earlier in the chapter. The measurement results should be compared with the target values. If they are not satisfactory, appropriate activities to improve the business processes should be defined and realized. After this, subsequent measurement can be initiated. This cycle of measurement and activities should be repeated until the defined objectives have been reached. During go-live support and later, the success of improvement or optimization activities should be measured regularly.

Resolution and closure for all outstanding problems in the issue management system must take place for the formal signoff of project team members. The value drivers and the business measurements, both of which were defined at the start of the project in phase 1, are reviewed to check project results against the goals set at its outset. This review is then presented to executive management. An ongoing evaluation procedure is established to monitor the benefits of the SAP implementation over time.

To ensure the operability of the SAP solution you have implemented, we recommend that you use the *SAP standards for solution operations* by running the SAP methodology. You need to ensure that daily operations perform properly and that the originally designed operations processes are optimized and adapted to new challenges. The Run SAP methodology will support in scoping, design, setup, and optimization of the solution operations standards. The Run SAP methodology is the last phase in the ASAP methodology.

In Table 12.12 you can see the key deliverables, milestones, and key decisions of the run phase.

Purpose	Deliverables	Milestones & Key Decisions
Run implemented SAP solution	Assessment of operation standards for optimized solution operation ▸ Identify scope ▸ Set up project schedule for implementing	Identification of operation standards for optimized solution operation

Table 12.12 Run Phase Summary

Purpose	Deliverables	Milestones & Key Decisions
Optimize solution operation by implementing SAP operation standards	For each relevant operation standard: ▶ Design of processes, organization, and roles; blueprint for tool usage ▶ Setup of processes, organization; and roles; tool setup ▶ Transition into production including training and rollout ▶ Operating the solution	Design, setup, and operation of SAP operations standards
		Tool implementation (mostly SAP Solution Manager scenarios for operation)

Table 12.12 Run Phase Summary (Cont.)

We have now completed the description of each of the six phases in the new ASAP core 7 methodology, including how value delivery, business process management, and service-oriented architecture are reflected in the six phases, and including the skills enablement requirements for the project team members. The next step is to go into the details of the second visible components of the ASAP methodology: The business add-ons to ASAP that extend the ASAP Roadmap with modular business implementation content.

12.4 Business Add-Ons to ASAP

The business add-ons to ASAP extend the ASAP methodology with modular business implementation content and additional methodology and governance frameworks. The business add-ons provide proven implementation content for implementation of various industry solutions, solutions packages, and other related areas such as agile methodology, BPM, SOA, Value Management, EA governance, and strategy frameworks. The business add-on concept is the gateway to executing process-based and easier-to-consume solutions including enabling simpler, shorter, and less disruptive implementations. The first business add-ons to ASAP were released to the SAP community on June 7, 2010.

In the following sections we will introduce the business add-on to ASAP concept, the way in which the content flavoring occurs, the toolsets used, the direct link between the business add-ons and business process management, and what value can be gained from such an approach including how to view and activate business add-ons in an SAP implementation project.

12.4.1   Business Add-Ons – a New Flavored   Approach

One of the fundamental steps in the redesign of the ASAP implementation methodology was the removal of all industry solution and other related content. This process helped to significantly streamline the ASAP implementation methodology and at the same time made the ASAP implementation methodology flavorless.

To cater to the diverse solutions and industry solutions plus other types of scope that would be possible in an SAP implementation project, we have introduced the concept of the business add-ons to ASAP. The business add-on is what provides the flavor to the scope of an SAP implementation project. For example, if the scope of the implementation project is defined as requiring a point of sales (POS) solution for a retail customer, then SAP has provided a business add-on to ASAP that delivers POS implementation content that comes prepackaged with all of the relevant POS content for such an implementation.

This concept of adding the relevant flavor of a business add-on to ASAP is extended if the scope of the implementation contains an industry solution, a solution if you choose more than one business add-on, and another SAP-related component. In such an instance multiple business add-ons to ASAP would be used in combination to create the right flavor to meet the scope of the implementation. Figure 12.38 describes the concept of the business add-ons to ASAP in more detail.

The key message from this figure is that combination of the ASAP implementation roadmap with the business add-on to ASAP provides for a detailed WBS for each individual project based on its scope.

The main ingredients when working with a business add-on include the following characteristics:

▶ Can be switched on/off based on project needs
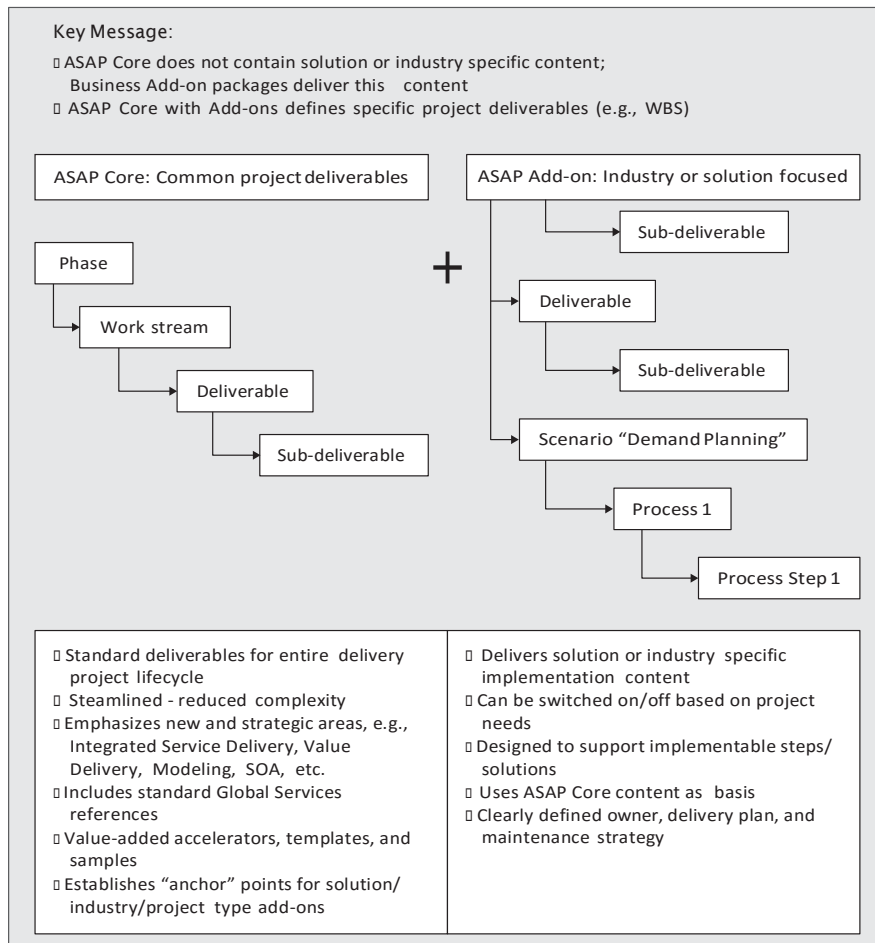▶ Uses ASAP Roadmap content as basis

Figure 12.38 The New Business Add-On to ASAP Concept

Can Be Switched On/Off Based on Project Needs

Project flexibility is key in our fast-changing economic, political, and social environment. The scope of a project can increase or decrease during different phase of the project. Therefore, the business add-ons have the ability to adapt to the various levels of flexibility required.

Each of the business add-ons is fitted with a specific flavor that matches the name of the add-on. The business add-on flavor is added to the roadmap flavor in the SAP Solution Manager system or the HTML extract that you can view or download from SAP Service Marketplace via https://service.sap.com/asap-business-add-ons.

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During the project preparation phase, the scope of the project is set up in the Project Administration area within SAP Solution Manager. You can select and deselect the scoping of the relevant business add-ons during this process. For example, if a project is initiated with only a business add-on to ASAP that delivers point of sales implementation content, and the business later requires additional reporting development using SAP BusinessObjects reporting, then the SAP BusinessObjects reporting add-on can be switched on to support and enable the implementation of the SAP BusinessObjects reporting solution.

Figure 12.39, Figure 12.40, Figure 12.41, and Figure 12.42 give an example of how to activate the flavor in the HTML version that you can access via SAP Service Marketplace and SAP Solution Manager project administration. Figure 12.39 shows how to select a flavor. In Figure 12.40 you can see how this flavor integrates into the general roadmap.
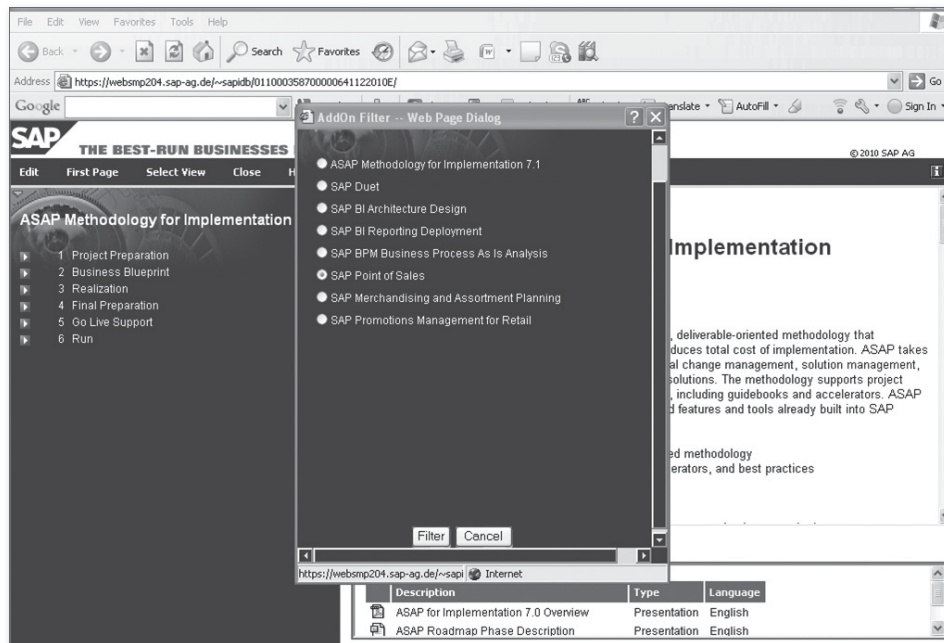

Figure 12.39   Flavor of SAP Point of Sales Selected via the HTML Extract on SAP   Service Marketplace

Figure 12.41 shows how the flavor of SAP Merchandise and Assortment Planning and SAP Promotion Management for Retail is selected via the Roadmap Select tab in SAP Solution Manager project administration.
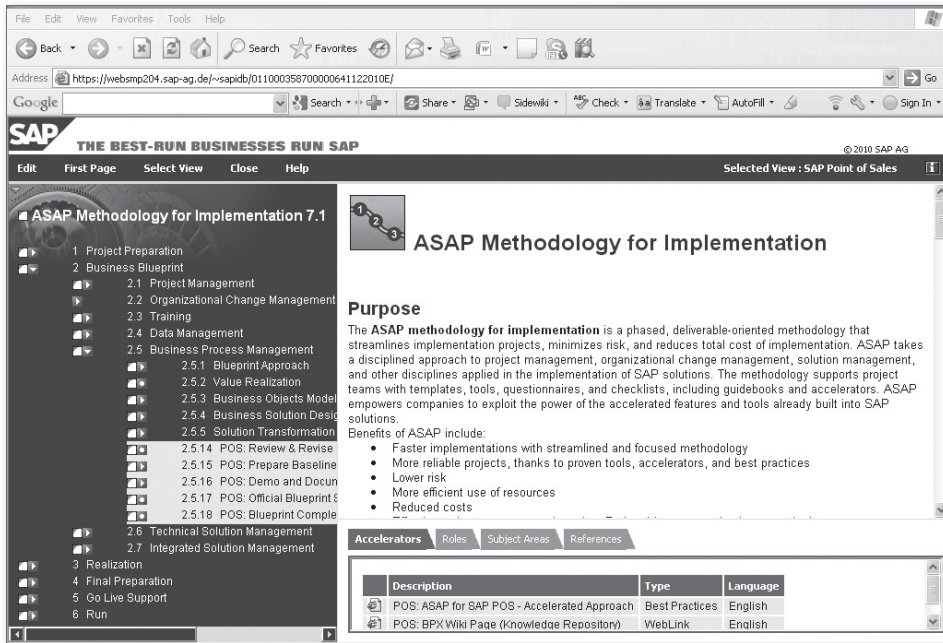
Figure 12.40   Flavor Content from SAP Point of Sales Merged into the ASAP Methodology   for Implementation 7.1
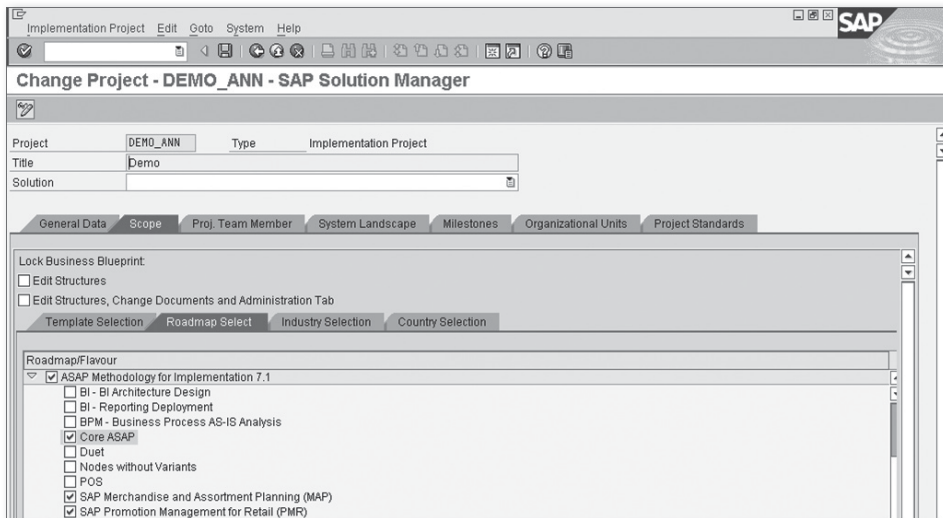

Figure 12.41   Selecting a Flavor in SAP Solution Manager Project Administration

Figure 12.42 shows how to merge the selected flavor into the ASAP Methodology for Implementation 7.1 Roadmap in SAP Solution Manager.
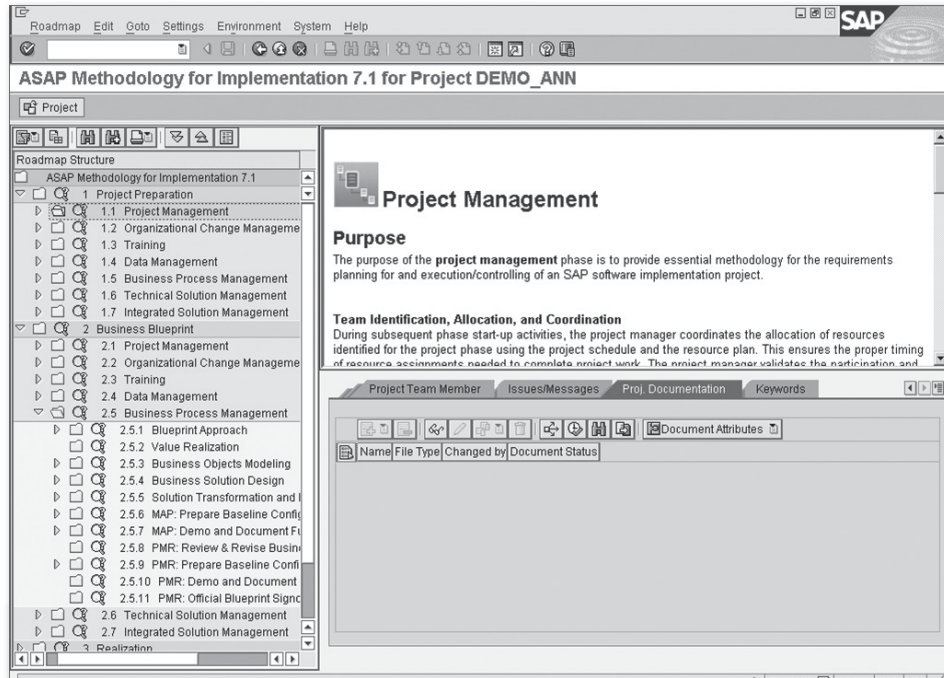

Figure 12.42   The Flavor in the ASAP Methodology for Implementation 7.1 Roadmap in   SAP Solution Manager

Uses ASAP Roadmap Content as Basis

The business add-on concepts exploit the use of SAP's generic implementation methodology foundation — ASAP. The ASAP Methodology for Implementation is a phased, deliverable-oriented methodology that streamlines implementation projects, minimizes risk, and reduces the total cost of implementation. ASAP takes a disciplined approach to project management, organizational change management, solution management, and other disciplines applied in the implementation of SAP solutions. The methodology supports project teams with templates, tools, questionnaires, and checklists, including guidebooks and accelerators.

The business add-ons are not aimed at duplicating the ASAP methodology but serve as flavored enhancements to it.

Categories of Business Add-Ons and Their Content

The business add-ons to ASAP are grouped into three categories of add-ons that each can include content as described below:

1. Business add-ons to ASAP that deliver methodology, governance frameworks, and implementation technology content
    ▶ Methodology and governance (roadmaps, accelerators, handbooks, examples, etc.)
    ▶ Enablement content (education, literature, white papers, service offerings, starter kits, etc.)

2. Business add-ons to ASAP that deliver implementation content
    ▶ Flavor methodology (project scope statement, configuration guide, etc.)
    ▶ Business content (business process structure, process descriptions, value drivers, KPIs/ PPIs)
    ▶ Implementation content (solution descriptions, links to IMG objects, transactions, SOA services, test cases, etc.)
    ▶ Enablement content (education, literature, white papers, service offerings, starter kits, etc.)

3. Business add-ons to ASAP that deliver small innovative BPM- and SOA-based implementation content
    ▶ Flavor methodology (project scope statement, composite guide, etc.)
    ▶ Business content (business process structure, process descriptions, value drivers, KPIs/ PPIs)
    ▶ Implementation content (solution descriptions, SOA services, test cases, etc.)
    ▶ Enablement content (education, literature, white papers, service offerings, starter kits, etc.)

12.4.2   Tools for Applying Business Add-Ons

The tools that are used to view, activate, and consume business add-ons are aligned with the current architecture governing SAP implementations. You can view the business add-ons via:

▶   SAP EcoHub (http://ecohub.sdn.sap.com/)
On SAP EcoHub the business add-ons can be sorted by industry, line of busi-
ness, solution type, and hot topics.

▶   SAP   Service   Marketplace   (https://service.sap.com/asap-business-add-ons)
On the ASAP business add-ons landing page on SAP Service Marketplace, the
business add-ons can be sorted by industry, solution type, platform and tech-
nology, and cross-solution.

For each business add-on the available information is split into:

▶ Learn about the business add-on

▶ Learn from others

▶ Download area

▶ Feedback

You can activate and consume the business add-ons via:

▶ SAP Solution Manager

▶ SAP Enterprise Modeling by IDS Scheer via a database

▶ SAP Service Marketplace and SAP EcoHub, where you can download the HTML
Extract

Each of these tools has a unique role and function in presenting and delivering
business add-ons, which we will discuss in detail in the following sections, starting
with SAP Solution Manager.

SAP Solution Manager

SAP Solution Manager is an integrated toolset encompassing content, tools, and
methodologies for the implementation and operation of SAP solutions. The busi-
ness content is complemented with flexible functionality that helps project teams
during the entire lifecycle of the SAP solution. The business add-ons to ASAP are
included in the SAP Solution Manager content support implementation packages
(ST-ICO).

The business add-ons are delivered via two steps in SAP Solution Manger. You
need to activate these two steps in SAP Solution Manager project administration.
First, the business add-ons are delivered through SAP Solution Manager roadmap
selection (see Figure 12.43) and, second, through template selection (see Figure
12.44). In these figures, you will see how to activate the business add-on via the

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two steps. We are using the business add-ons Assortment Planning and Promotion Management for Retail as examples.
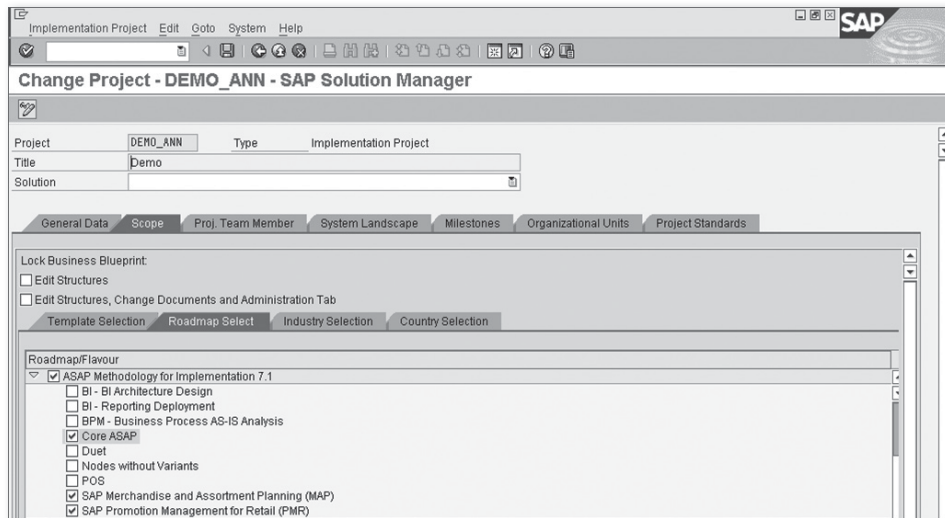

Figure 12.43 Step 1: Activate Business Add-Ons in Roadmap Selection in Project Administration
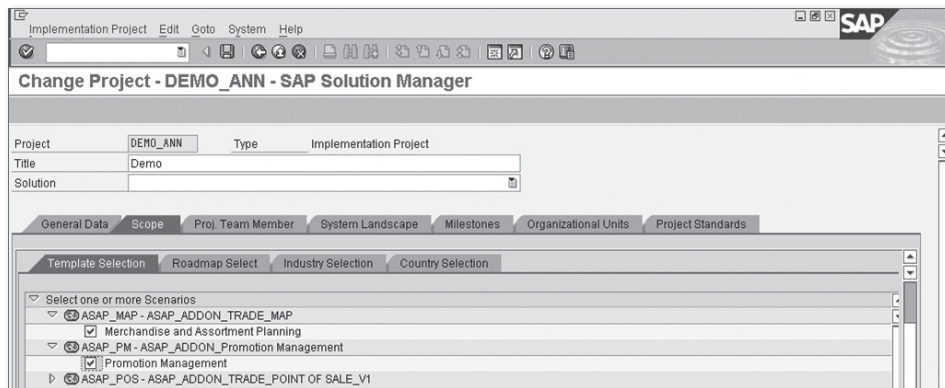

Figure 12.44 Step 2: Activate Business Add-On in Template Selection, Project Administration

The business add-on content that is included in a template project covers all of the relevant business process content required for that specific scope of SAP implementation. The template contains the business process content that enhances the development and execution of the business blueprint (SOLAR01) and realization (SOLAR02) phase deliverables.

This process of providing both methodology (business add-on roadmap) and business process content (business add-on template package) within SAP Solution Manager greatly enhances the overall delivery of SAP implementation projects.

For customers and partners who are not using SAP Solution Manager for their project implementation, an HTML extract of each of the business add-ons has been made. This HTML extract is available in the SAP Service Marketplace and SAP EcoHub as already mentioned.

SAP Enterprise Modeling Applications by IDS Scheer and SAP Solution Manager

The business add-ons can be linked to the SAP enterprise modeling applications by IDS Scheer through the inherited synchronization between SAP Solution Manager and SAP enterprise modeling applications by IDS Scheer or by restoring the ARIS database, which can be downloaded via SAP Service Marketplace or SAP EcoHub. In Figure 12.45 you can view the business add-on via SAP Enterprise Modeling by IDS Scheer. The example uses the business add-on to ASAP that delivers defense equipment management, synchronized to SAP Solution Manager.
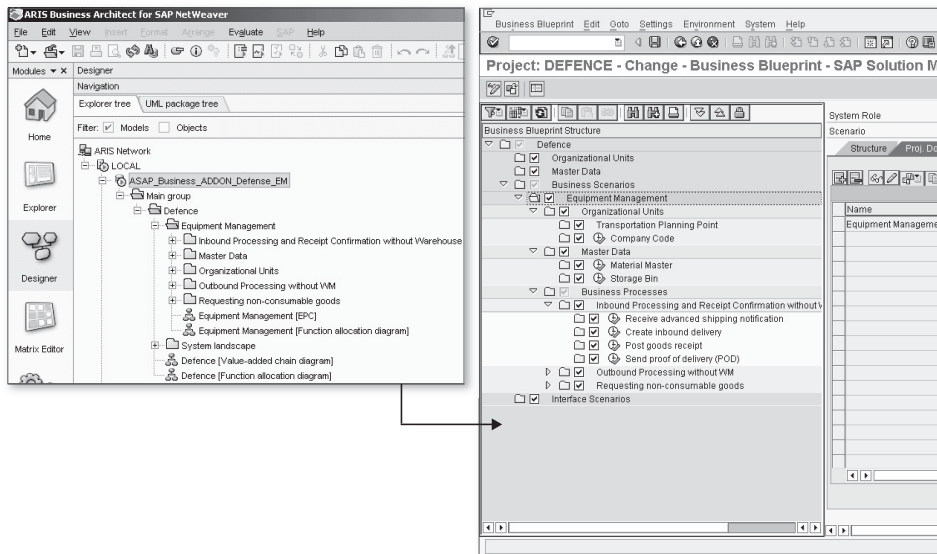

Figure 12.45   Business Add-On Synchronized to SAP Solution Manager

The business add-on in SAP Enterprise Modeling by IDS Sheer includes the models value add-chain diagram, EPC column display diagram, and a function allocation diagram as shown in Figure 12.46.
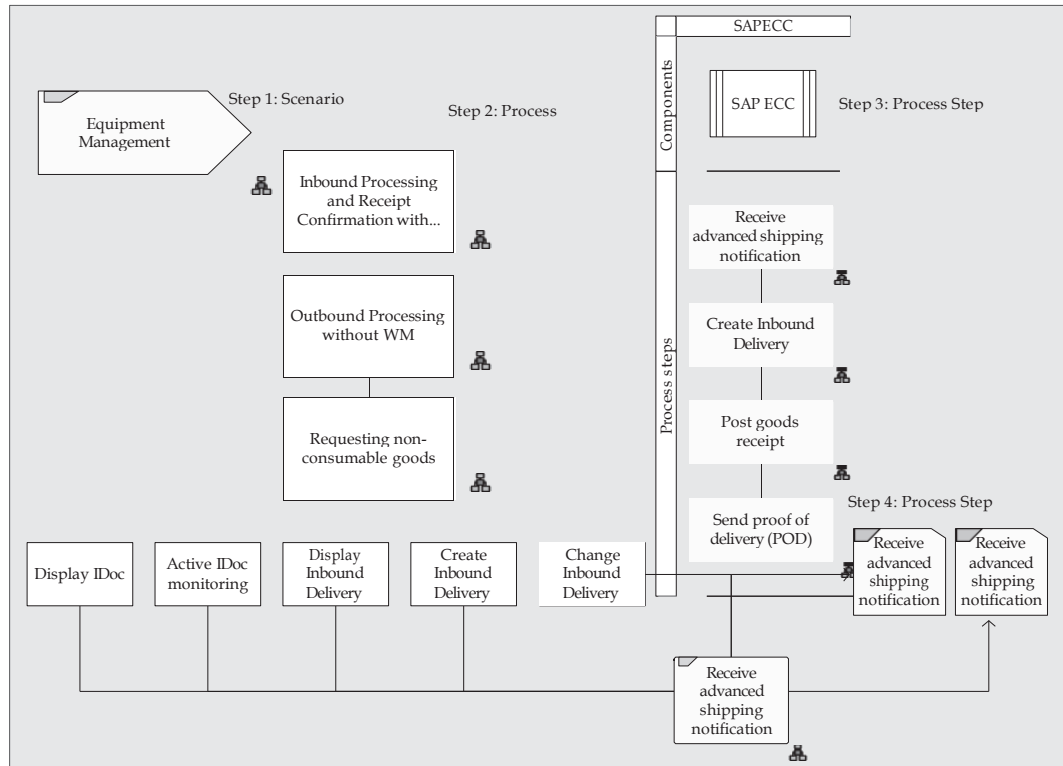

Figure 12.46 Models in the Business Add-On in SAP Enterprise Modeling by IDS   Scheer

SAP Service Marketplace and SAP EcoHub

In the development of business add-ons it is clear that the content in the form of accelerators (guidebooks, white papers, templates, etc.) needs to be stored in a location that is accessible to SAP customers, partners, and internal staff. The SAP Service Marketplace and SDN/BPX Community has been selected as the repository for all business add-on content that related to the accelerators. The SAP Service Marketplace and SAP EcoHub are also where you can get an HTML version of the business add-ons. Each business add-on that is delivered for consumption has a single page describing the business add-on and provides a link to an online and offline HTML version.

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In the following sections we will give more detailed information about the three categories of business add-ons (Section 12.4.3). In Chapter 14, Section 14.1 we will provide details and corresponding examples. We will start with the methodology, governance frameworks, and implementation technology content category.

More Information

You can learn more about business add-ons via "Real World BPM" in an SAP Environment Webinar Series that runs weekly on the SDN/BPX Community.

Please go to: *http://www.sdn.sap.com/irj/sdn/index?rid=/webcontent/uuid/40b722af-7e30-2d10-d296-a29ecd1c8fda*

12.4.3   Methodology, Governance Frameworks, and Implementation Technology Business Add-Ons to ASAP

The business add-ons to ASAP include several methodology, governance, and implementation technology add-ons. Below you will find a selection of available add-ons, including a detailed introduction to the agile add-on. We will start with the Business Add-Ons to ASAP delivering Business Process Scanning Methodology, testing content, and content for SAP enterprise modeling applications by IDS Scheer.

Business Add-On to ASAP Delivering Business Process Scanning Methodology

The business process scanning add-on enables organizations to derive and prioritize process improvement projects in their companies with a clear link to their corporate strategies. Business process scanning includes two phases:

1. Calibration
   The objective of the calibration phase is to reach agreement on a list of processes that are to be analyzed and optimized.

2. As-is analysis
   The objective of this phase is to understand the as-is situation of the selected processes and the IT landscape and to identify weaknesses, pain points, and as-is process performance measurements (PPIs) in respect to cost, cycle time, and cost.

Business Add-Ons to ASAP that Deliver Content for Testing

▶ Testing Strategy
▶ SAP Quality Center by HP

▶ TAO for SAP

▶ TDMS

Business add-ons to ASAP deliver content for SAP enterprise modeling applications by IDS Scheer:

▶ Redocumentation using SAP Solution Manager and SAP Enterprise Modeling by IDS Scheer

▶ SAP Solution Manager integration with SAP Enterprise Modeling by IDS Scheer

▶ Enterprise Services Repository integration for SAP Enterprise Modeling by IDS Scheer

▶ SAP Business Process Optimization by IDS Scheer

▶ Process intelligence for SAP Process Performance Management by IDS Scheer

▶ Process publishing for SAP Business Server and Publisher by IDS Scheer

▶ SAP enterprise modeling applications by IDS Scheer (consolidated add-on)

More Information

For more details about the add-ons described in this section, please go SAP EcoHub, http://ecohub.sdn.sap.com/, SAP Service Marketplace, https://service.sap.com/asap-business-add-ons, or SAP Solution Manager, where you can view and activate each of the add-ons.

Now we will go into the details of the business add-on to ASAP delivering agile methodology.

Business Add-On to ASAP delivering Agile Methodology

The current economic climate demands a fast return on investment and lower total cost of implementation. It is fairly common to see project requirements evolve or outright change during the project lifecycle due to changes in the business environment or business priorities.

One of the ways the new ASAP Methodology for Implementation addresses this uncertainty is through the adoption of selected acceleration techniques and practices geared to build a common understanding of requirements and their validation. With these techniques, project teams can rapidly respond to changing or evolving business requirements as described in earlier chapters. To complement the acceleration techniques that are built into ASAP core, the new business add-on

concept enables project teams to activate the business add-on to ASAP for agile implementations that reshapes the traditional ASAP implementation approach into a more streamlined iterative model that leverages proven principles of agile methods. The business add-on for agile is based on a Scrum-like approach that utilizes proven techniques suited for SAP implementation projects. This chapter discusses the acceleration techniques of core ASAP and agile business add-ons in more detail.

Agile software development methods have been gaining popularity in software development projects over the past several decades. The first major evolution of these techniques happened in the mid-1990s when methods such as Scrum and Extreme Programming were popularized for software development projects.

The key characteristics of these methods are:

▸ An adaptive approach with less focus on planning and documentation

▸ Short time-boxed delivery cycles

▸ Close cooperation between business users and developers

▸ Face-to-face communication

▸ Frequent team meetings to keep alignment

▸ Simplicity/leanness

▸ Frequent validation of requirements with business users

Agile project teams utilize shorter iterative cycles of planning, design, and realization to deliver work product increments on a regular basis. They also frequently validate their understanding of requirements to minimize the chance of rework. This enables them to respond to changes in requirements quickly and to frequently deliver work products or work product increments. This attention to changes also enables the project teams to adopt and learn about the evolving nature of requirements (which may not be fully understood in early stages of the project) and the ability to slice large projects or software products into smaller, easier to digest and deliver releases of business functionality.

Whereas many software development teams have been successfully deploying methods like Scrum and Extreme Programming, deployment of these methods in enterprise implementation projects has been limited. Only in the past few years has the trend of using agile methods and principles in implementation projects, beyond the areas of software development and standard product enhancements, been taking hold.

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As discussed in Section 12.3, SAP has redesigned the ASAP Methodology for Implementation to enable creation of industry, solution, and other types of business add-n content. With the business add-ons the standard ASAP methodology for implementation can be extended to provide implementation content and methodology guidance not only for a specific industry or solution, but also to adjust the traditional implementation approach to enable the use of selected, proven agile methodology principles that work in SAP implementation projects.

Although this approach is not suitable for every implementation project, there is a large body of SAP projects that can benefit from all or selected techniques using short time-boxed cycles (sprints) to deliver working solutions in frequent cycles. Note that SAP extracted a set of acceleration techniques into the core ASAP methodology.

Let's take a look at how the agile methods and techniques are implemented in business add-ons and how they extend or modify the ASAP Methodology for Implementation. The business add-on for agile is overlaid on top of the core ASAP methodology; it preserves key components and deliverables from ASAP while extending it with new concepts.

The project starts with a standard project preparation phase in which the project team completes the standard set of deliverables, for example, high-level project WBS, high-level project schedule, project scope statement, and so on. The key driver for the project scope is the initial project scope statement that is determined in early stages of project preparation phase.

This is the key deliverable that drives subsequent activities in the business blueprint phase during which the team completes the project backlog. The project backlog is built following acceleration techniques for blueprinting and the ASAP blueprint approach. These standard techniques are extended to support a clear way to prioritize the requirements and validate them with the business process owners.

The project backlog in turn forms the basis for determining the scope of individual sprints that implement the iterative process of building working a solution in short time-boxed cycles. Each sprint scope is then represented in a sprint backlog.

During each sprint the project team works on functionality, feature sets, or configuration outlined in the sprint backlog. Each sprint is a cycle of detailed design, development, composition, configuration, and testing. Before completing the sprint, the project team conducts validation of the functionality specified in the sprint backlog with the end users through demo or presentation of results and formal sign-off.

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After the completion of the sprint, the sprint backlog is revised; for example, completed items are closed and any new scope items are added and prioritized. This revised and prioritized project backlog sets the scope for next sprint.

Sprints are not the only new technique in the agile approach to implementation. The second key concept is the schedule for release of incremental work products to the business. The releases can be planned after an individual sprint or multiple sprints are completed. Typically, in SAP implementations release occurs after multiple sprints. You can think of release as a smaller version of cutover for specific functionality to production. Once the project team completes the work on final sprint before a release, work increments of this last sprint and all preceding sprints are released to the end users in a structured way. This procedure is graphically shown in Figure 12.47.
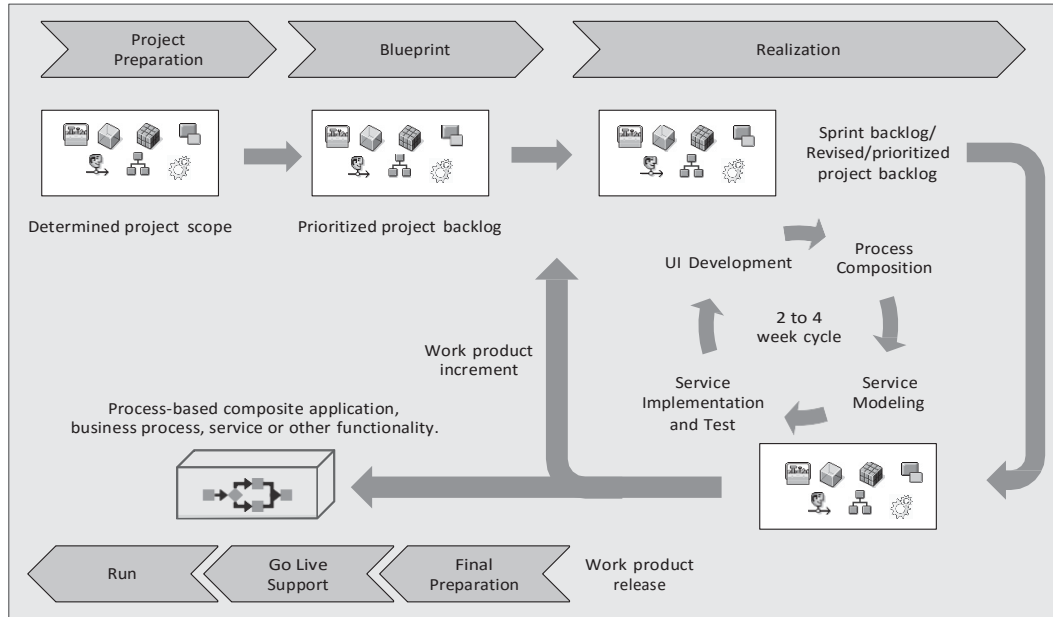

Figure 12.47   Agile Methodology Add-Ons

After the release the project team continues with next sprint until next release milestone is reached. This process continues until the project backlog is eliminated or until the project objectives are met.

The business add-on for agile not only contains the agile approaches discussed above (such as the iterative approach, frequent validation of requirements, etc.),

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but also leverages proven acceleration techniques that help project teams reach a better understanding of requirements and business objectives to be achieved in the project.

These acceleration techniques are built into the core ASAP Methodology for Implementation because they benefit not only project teams using the business add-on for agile, but also teams following a traditional ASAP cycle approach.

The following list outlines the key acceleration techniques built into the ASAP methodology:

▶ **IP reuse**
SAP delivers different assets, which enable acceleration of specific activities in a project. One example is the use of business add-ons to ASAP that deliver implementation content that enables project teams to leverage prepackaged content as a starting point for implementation. Another example is the use of SAP Best Practices that play key role in building preconfigured solutions. The Best Practices are based on business configuration sets (BC sets) and solution documentation that enable project teams to gain early access to fully functional business process scenarios to build a common understanding of requirements and needs.

▶ **Elimination of rework through solution visualization**
Early visualization of solutions in the blueprint phase leads to a better understanding of requirements and solution capabilities. Iterative development paired with conference room pilots is often leveraged to validate the solution design before full-scale implementation commences in the realization phase. This eliminates costly rework in later stages of the project that is often caused by misunderstandings between the project team, the business process owner, and the IT team.

▶ **Use of services**
SAP offers many services that can be used to address specific challenging areas of the project. For example, value prototyping services are often utilized to assist in development or configuration of more complex environments; the scope is based on customers' areas of interest and pain points. Generally, this approach is used in the discovery stage or early in the blueprint phase. The value prototyping team goes through n time-boxed implementation periods (four weeks) and uses a lab environment to configure the preferred solution or part of the solution that is typically brought back to the project. An example of the use of this service is large transaction volumes that need to be processed in a predefined time or the building of interfaces to high-risk legacy   systems

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and others. You can find more information about value prototyping for BPM in Chapter 15.

We outlined the key concepts of the principles built into the business add-on to ASAP that delivers agile methodology and the acceleration techniques that are included in the core ASAP Methodology for Implementation. This section attempts to summarize the key benefits of the above outlined techniques for project teams and organizations:

▸ Faster results through step-by-step delivery of software via sprints and frequent releases

▸ Delivery of software based on the priorities of the business process owner

▸ Clear visibility of costs and value of each sprint

▸ Higher level of transparency through continuous monitoring of the project backlog and sprint backlog

▸ Frequent meetings and sync points keep the project team engaged and aligned

▸ Permanent and close involvement of business users in shaping the solution

▸ Increased flexibility — project team is able to respond to changes in prioritization or business needs per sprint.

Agile in SAP Implementation at LM Wind Power

Let's explore how LM Wind Power, an SAP customer, used an agile implementation approach to successfully deploy a solution in their environment. LM Wind Power is the world's leading supplier in fiberglass blades, which are used in wind turbines. The company's main office is located in Kolding, Denmark, and they employ approximately 5,000 employees in 9 countries. LM Wind Power first began their agile implementation in 2009, with a go-live date of January of 2010.

The LM Wind Power Group had been running best-of-breed applications in the business prior to implementing their integrated solution from SAP.

The company has a strong focus on green energy. An aggressive global growth strategy that was executed at the same time the financial crisis hit required a corporate HR system to optimize the organization. For Norbert Stein, HR director at LM Wind Power, SAP was the natural choice. LM Wind Power decided to go for a full HR implementation, divided into several phases.

This customer case only covers phase 1, which included:

▶ Organizational management (OM)

▶ Personnel administration (PA)

▶ Performance management (PRM)

▶ Employee self-service (ESS)

▶ Manager self-service (MSS)

During the selection process for the best methodology approach, the LM Wind Power team highlighted the following needs:

▶ The cost of implementation must be low.

▶ The implementation time must be short.

▶ The resulting solution should be as close to the SAP standard as possible.

In addition, the LM Wind Power team stated that they did not want to see all of the different configuration possibilities within SAP. LM Wind Power wanted SAP to choose what would be the "best fit" for them and their business.

For these reasons it was obvious to SAP that the traditional implementation approach would not be good fit, and the team had to become more agile. The proposed implementation approach was inspired by both the ASAP methodology and the Scrum methodology. A new hybrid agile implementation methodology was designed for this project.

The methodology is divided into multiple phases, and the applicable content from the ASAP Roadmap was reused as needed. The inspiration from Scrum came into play in the scoping, design, and build phases. The phase naming was kept as close to ASAP as possible, but business blueprint phase and realization phase were changed to scoping, design, and build and transition phase because they were using and developing a new hybrid approach.

Just as in the ASAP methodology the project preparation phase of the agile approach sets the scene for the project. The activities and deliverables were to a large degree adopted from ASAP. It was very important to provide agile methodology training to the project team at this early stage. Because this case was an accelerated implementation, and "time to value" needed to be reduced, the team was forced to move some of the deliverables from scoping, design, and build to the project preparation phase.

It is important to emphasize that areas like organizational change management, support strategy and procedures, and data management strategy must be consid-

ered during project preparation. Activities within these areas must commence right after the project kickoff. SAP Solution Manager configuration for an implementation project is also done during this phase.

Because LM Wind Power was new to SAP software, proper management attention was the key driver in putting the necessary focus on these areas at such an early stage.

During the scoping phase the scope for the project was outlined in the project scope statement. To complete this deliverable the team conducted a detailed scoping workshop to document the scope of the required level of detail. The workshop was conducted as a fit/gap analysis workshop containing a walkthrough of all of the business processes. Because this workshop formed the basis for what was going to be built later, the table content had to be decided as well.

The outcome of this activity was the requirements document captured as a product backlog. The requirements in the product backlog must be prioritized, outlining which of the requirements should be realized first.

At LM Wind Power the scope was not too large, and the team realized the complete scope in one sprint. The detailed scoping workshop was a two-day workshop, and the scoping phase was set for two weeks. Consolidating the outcome of the workshop included producing the clarified issues and additional customer deliverables of the final product backlog. The LM Wind Power team then signed off on the backlog. The final product backlog is to be considered as the business blueprint guiding the planning and execution of the solution.

On the technical side, the system landscape document was finalized, and the development system was installed.

In the design and build phase, the SAP team planned the sprints, completed the final design, and implemented the solution.

Planning the sprints consists of taking the final product backlog and defining what to build in the different sprints, for example, producing the sprint schedule. Because the scope at LM Wind Power was limited, it was fairly straightforward to define the release schedule because the scope could be realized in one sprint. Based on lessons learned, sprints should be from two to four weeks.

The final design was done as the team detailed each task for building the solution. Each task was estimated down to hours, and the task duration was reflected in the sprint schedule. This was one of the most difficult and one of the most important tasks in the project, because the sprint schedule sets the baseline for the project

manager to measure the progress of the building of the solution. Because the consultants were new to the agile implementation approach, the project manager spent extra time educating the team. Before initiating the sprint the team performed a "readiness check" to confirm that all required elements are in place and the team was ready to go.

The sprint was kicked off, progress was measured on the burn-down chart, and the project status was discussed in the daily Scrum meetings.

The project team decided to use a demo during the sprint, not only to present the project progress, but also to get the initial approval for the solution from the business process owners.

Then the sprint the team presented the built solution to LM Wind Power's global HR management team in a workshop. This activity identified six additional requirements that were realized shortly after presenting the build solution, and the solution was signed off by the customer team.

Other deliverables completed during this phase were the traditional ASAP deliverables such as test plans, test cases, the training plan, training materials, the end-user role concept, the role map, the detailed data management plan, and so on.

During the transition phase the project team performed quality assurance on the solution, prepared the productive system, trained the end users, and formed the support organization for ongoing operations and support of the solution. Both functional and integration tests were planned and executed with the help of SAP Solution Manager testing functionality. The customer signed off on the solution before the cutover activities commenced.

During the cutover the team benefited from the numerous simulation test migrations, and the production data load ran smoothly. The new end users of the system were trained, and after LM Wind Power performed a short user acceptance test the productive system was approved for go-live as planned. Initially the businesses in Denmark and Poland went live; the remaining businesses followed one month later.

The initial days and weeks of using the new system in the pilot countries went as intended during the go-live and support phase. The project team received useful feedback from the end-user community that helped fine-tune go-live activities in the remaining countries. The rest of the business went live in early January 2010. The project team supported the solution for another month after go-live, before handing over the operations to customer team.

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Both LM Wind Power and SAP agree that the implementation has been successful and use of hybrid methodology based on traditional ASAP combined with a Scrum approach is promising to open new ground for successful projects. LM Wind Power has decided to use the same implementation methodology for the remaining parts of the scope. SAP has leveraged the lessons from this and other agile projects and reflected them in both core ASAP methodology and the business add-on to ASAP delivery of agile methodology. For more details about this case refer to the customer success story on SAP's corporate website (http://www.sap.com).

12.4.4   Governance Framework Add-Ons

We will now look at a selection of the available governance add-ons, which include business add-ons to ASAP that deliver value management organization, program management office, customer center of expertise, and business process management office, SOA strategy and governance, etc., as illustrated in Figure 12.48.
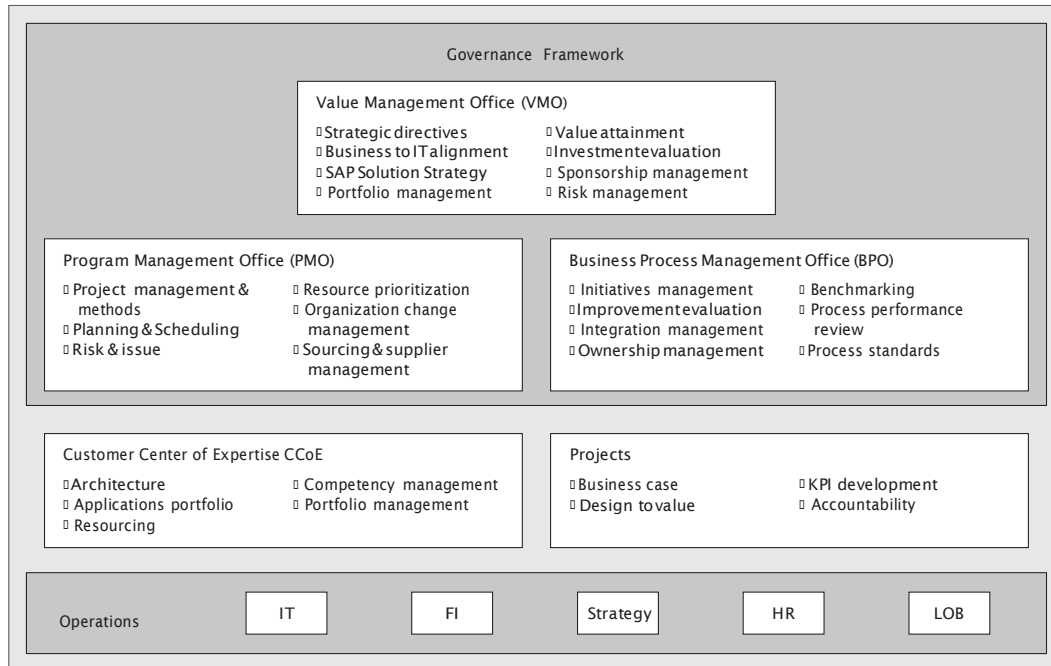

Figure 12.48   Governance Framework Add-Ons Included in the SAP ValuePartnership Framework

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The governance add-ons are also included into the ValuePartnerShip (VPS) framework, which includes customized SAP services to address your specific business and IT transformation needs. The SAP VPS framework is presented in Section 15.7.

Let us now take a detailed look at the details of the business add-ons to ASAP that delivers SOA strategy and governance and BPM strategy and governance frameworks.

> **More Information**
>
> For more details about these add-ons please go SAP EcoHub, http://ecohub.sdn.sap.com/, SAP Service Marketplace, http://service.sap.com/asap-business-add-ons, or SAP Solution Manager, where you can view and activate each of the add-ons.

Business Add-On to ASAP Delivering SOA Strategy and Governance Framework

Earlier in this chapter we mentioned that effective service-oriented architecture (SOA) governance is important to ensure the success of your SOA-based SAP implementation projects. Effective SOA governance calls for a holistic management approach that integrates and aligns the corporate business strategy, the IT strategy, and the planning and operational activities associated with service-oriented solutions. This approach encompasses people, processes, and technologies. In most companies, some elements of SOA governance already exist. For instance, you can leverage IT governance as part of the foundation for SOA governance. But SOA governance includes additional capabilities within the organizational structures, skills, and procedures that have an even closer alignment with the business.

Effective SOA governance is built upon four elements. The first element is the governance management, which includes the organizational structures, skill sets, and procedures that are aligned with the specific needs of the company. The second element is toolsets and lifecycle management, which include all of the tools required to support good governance and to achieve the ultimate goal of automated governance. The third element is a design and modeling methodology that includes a methodology that spans all phases of service design, harmonization, and implementation. The last element is community building, which includes continually sharing ideas and Best Practices, inside and outside of the company, for a faster time to value and sustained success. To build or improve your existing service-oriented architecture governance you can apply the business add-on to ASAP that delivers SOA strategy and governance framework. The add-on is a

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roadmap that you can access via SAP EcoHub, SAP Service Marketplace, and SAP Solution Manager.

The service-oriented architecture framework within the add-on (as seen in Figure 12.49) is composed of three phases: SOA analyze, SOA design, and SOA transform. Each of the phases includes a description of the steps necessary to achieve the preferred SOA strategy and governance state.
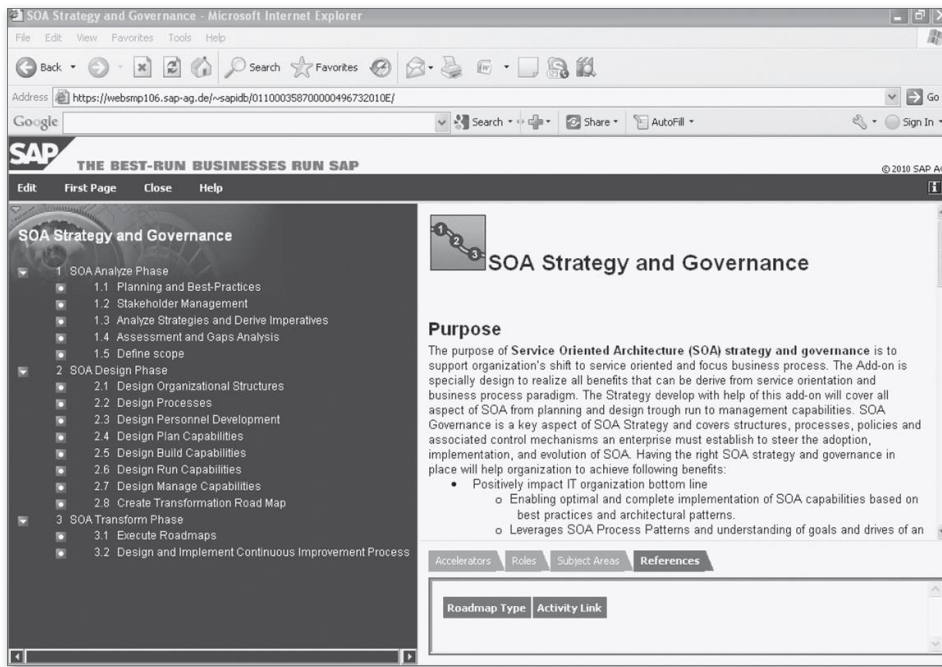

Figure 12.49 SOA Strategy and Governance Add-On

Let's take a look at the phases:

1. SOA analyze phase
   The purpose of the analyze phase of the SOA strategy and governance roadmap is threefold:

   ▶ Articulate what needs to change to achieve the SOA goals.

   ▶ Understand the focus and goal of the corporate strategy (includes understanding all relevant parties and linking SOA strategy and governance activities to the strategy of the organization).

▶ Document the organization's specific coverage of the reference model's (SOA reference architecture and governance and organization framework) elements as a basis for the definition and prioritization of action areas and scope of the future state.

Important functions of this phase include interpreting needs and influencing both the external and internal environments. To do this, the analyze phase helps initiate the creation of positive relationships with stakeholders through the appropriate management of their expectations and agreed objectives. Toward the completion of this phase, the project team scopes SOA strategy and governance activities and prioritizes a list of activities that must be realized to reach the goal state as part of the analyze phase.

2. SOA design phase

The goal for the SOA design phase is to design the organization of the process, process fundamentals, and define a transformation roadmap and measurable success criteria. The team describes necessary personnel development measures and develops a high-level training concept including various training methods. They seek to design the SOA plan; build, run, and manage capabilities; and define a transformation roadmap and measurable success criteria. During this phase the overall SOA strategy and governance transformation are synchronized, described, and visualized. The major work streams of this phase cover the design of organizational structures, processes, and personnel development and the planning, building, running, and managing of SOA architecture capabilities. The final step of this phase is to create a transformation roadmap.

3. SOA transform phase

In the transform phase of the SOA strategy and governance roadmap, the project team develops missing SOA capabilities and modifies existing ones as discovered and outlined in the design phase. Activities in this phase transform the organization according to roadmaps developed in the design phases. The transform phase is an ongoing effort to improve SOA strategy and governance. These efforts seek incremental improvement over time. SOA strategy and governance is constantly evaluated and improved in light of efficiency, effectiveness, and flexibility. The major work streams of the transform phase are to execute roadmaps and design and implement continuous improvement process.

Business Add-On to ASAP Delivering BPM Strategy and Governance Framework

The add-on BPM Governance and Strategy enables organizations to shift to process-centric thinking, and to manage the complete improvement cycles of their business processes, from process design to monitoring and optimization, and to be able to change business processes more frequently to adjust to changing circumstances. The add-on BPM Governance and Strategy is a governances framework that includes the following phases: BPM strategy, BPM setup, BPM transition, and BPM supporting. The purpose of the BPM Governance and Strategy add-on is to provide organizations with a strategy and governance framework for developing a BPM Strategy and BPM goals and roadmap linked to overall corporate mission; setting up an organizational and governance structure with clear role and task definitions for efficient BPM (process owners, BPXs, process-centric IT, etc.); setting up a framework for process modeling, simulation, optimization, and measurement including process maturity assessments; setting up methods and a BPM tool landscape to run and manage business process lifecycle projects; transitioning the company to become process-centric; and creating structures for continuous business improvement.

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